

Quincy Steam Furnace

AMERICAN RAILROAD JOURNAL,

AND

IRON MANUFACTURER'S AND MINING GAZETTE.

ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 48 SOUTH THIRD STREET, PHILADELPHIA, AT FIVE DOLLARS A YEAR, IN ADVANCE.
SECOND QUARTO SERIES, VOL. IV., No. 47.] SATURDAY, NOVEMBER 18, 1848 [WHOLE No. 658, VOL. XXI.]

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Saturday, November, 18, 1848.

For the American Railroad Journal.
Railroads in Maine.

The principle of the railway, or the use of a hard surface, upon a level, or an easy incline, for the better moving of heavy bodies, must be as ancient as the pyramids. In constructing the Roman roads, such an African way, the application of the same principle was extolled, and the use of wooden railways has been known in England for some two hundred years.

The use of a different surface for the running of the wheels of a carriage, from the ordinary roadbed, was the first great discovery in railway science, but the railway system of the present day must be regarded as having its date at the time that steam locomotive power was fully established on the Liverpool and Manchester railway.

The Quincy railroad in Massachusetts, constructed in 1827, was built with a view to the use of horse power only, as was also the Baltimore and Ohio railroad, which was commenced as early as 1828. While the Liverpool and Manchester railway was in progress, the directors instituted an inquiry into the comparative advantages of horse power and stationary and locomotive steam power. Geo. Stephenson produced the locomotive engine "Rocket," which, in 1829, performed according to the stipulations or requirements proposed, and the question was forever put at rest. At the opening of the Liverpool and Manchester railway, September 16, 1830, the rocket accomplished a speed of 29 miles per hour. From this period we may date the RAILWAY SYSTEM.

Though the railway system may be regarded as still in its infancy, it must be considered as the greatest instrument of civilization which the world has ever known—not excepting even the arts of printing or the mariner's compass.

The progress of railway improvements, and their influence in increasing wealth, extending knowledge and enlarging the capacities of man, will hereafter form subjects of the gravest inquiry. Enough has been already shown to place the railway at the head of all practical sciences, and to entitle it to the profoundest regards of the political economist and the statesman. In England it has become one of the first, if not already the very greatest interest of the kingdom; and in some parts of New England it is second only to agriculture in the value of the property invested.

The indirect influence of the railway is of far greater value than the mere estimate of its cost.—Everything must be multiplied, not in simple ratio, but in geometric progression; and man himself is not only endowed with new capacities and faculties, through the agency of the railroad, but all these infinitely augmented and quickened.

Hence where the railway is known, it takes immediate hold of production in all its forms, at once leads to its own extension, till it eventually reaches all parts of the country; and those communities who are still without its influence, are compelled to witness a gradual withdrawal of its population and its property to those regions where this great blessing is enjoyed, or to embark at once in its construction.

Maine, notwithstanding the fact that she has greater natural advantages than any State in the Union, and is destined in the course of a quarter of a century to become the great ship owning and the great manufacturing State of the confederacy, has done but little towards the extension of railroads. The great advantages of her geographical position have been neglected or lost sight of by the circumstances of her political position. A frontier State, she has been cut off from all social or commercial intercourse on three sides, and held in commercial subjection to the State of Massachusetts on the other.

The early subjugation of Maine to Massachusetts placed her in a position of colonial dependence, which was perpetuated by the force of circumstances long after its nominal separation took place.

Extending along a line of sea coast, indented with numerous harbors, intersected by numerous navigable rivers, running in almost parallel lines to the sea, Maine is so divided so to have no national commercial centre, or capital. Boston has been resorted to from over eighty distant ports, or places of shipment as the commercial mart of Maine.

The policy of Boston has naturally led to the adoption of measures calculated to retain the trade of Maine by way of the sea. Her policy has been to create every possible facility for direct intercourse with Boston by water, and thereby prevent any concentration of business or capital at any one point at home.

The superiority of Boston over any town in Maine has enabled her to control not only the course of trade but the opinions of her people. This has been most fatal to her actual advancement. Weakened by a commercial separation from each other, all parts of Maine have been naturally led to look to Boston, not only for aid in all important local enterprises, but also for opinions. Hence the disposition to underrate our own ability, and undervalue our own advantages.

Massachusetts extended her three great roads to Lowell, to Providence and to Worcester, in 1835.—Prior to that date emigration had set strongly into Maine from Massachusetts; but from that date the tide gradually turned—owing to the new demand for labor and other causes growing entirely out of her railway system. For more than ten years a steady drain upon the population of Maine was made by Massachusetts. Her history, since 1835, is the most splendid commentary upon the railway system that could be written.

A feeling of dependence naturally begets a feeling of jealousy, and in 1836 commenced in Maine a policy hostile to manufacturing industry, and to railroads. A road from Bangor to Oldtown, and another from Portland to Portsmouth, was constructed by Boston capital; but both unfortunate in being located in such a manner as to be objects of dislike to the people upon the line of each. This circumstance, with other of lesser importance, made railroads unpopular in Maine. Legislative restrictions were constantly interposed, and the anti-railroad party was regarded as clearly in the ascendant.

This state of things continued till 1844, when the public mind was directed to the plan of a railroad to Montreal. Prior to this time, for seven years, the only applications for railroad charters, and the only measures taken for their extension, were with a view to Boston assistance. The feeling at that time had become general, if not universal, in Boston, that railroads could not be built in Maine without the aid of Boston capital, and in this feeling many in Maine participated.

When the plan of connecting Portland and Mon-

English shareholders in the Paris and Lyons railway, held in London August 23d.

"Sir I. L. Goldsmid in the chair.—Mr. C. Devaux one of the directors, had addressed a circular to the English shareholders, stating that the national assembly of France has passed a law to the following effect, viz:—That the Paris and Lyons shall become the property of the State. The holder of shares of 205f. (£10) paid up will, for each share, receive a certificate of French stock bearing interest of 7f. 60c. per annum. They will also have the option of paying up 250f. (£10) per share more, and in that case would receive 25f. per annum, instead of 7f. 60c. per annum, interest, commencing 23d of March last.—Notice of accepting such option must be given to the French government before the 1st of Sept. next. The 250f. already paid will form a guarantee deposit, which will decrease in proportion as the future instalments are made. The 250f. remaining to be called up will have to be paid as follows: 50f. on the 5th October, 1848; 50f. on 5th of January, 1849; 50f. on 5th April, 1849; 50f. on 5th July, 1849; 50f. on 5th October, 1849—together 250f. On each of these payments being made, the holder of the certificates above referred to will receive an inscription of rentes for 5f. The steps to be taken for the execution of the present decree, especially as regards those shareholders who shall not have paid up the instalments at the times stated, will be determined upon by the minister of finance. The shareholders who have paid up 275f. per share are to receive back from the company 25f. per share."

This does not look much like a government of the people, respecting private rights and private property.

Forgetfulness of Mankind.

Or Reasonable Accommodation in Railway Coaches.

The following remarks in relation to the unreasonable demands upon railway companies, which we find in the Railway Chronicle of 16th September, are very just as far as they go, but not quite severe enough to penetrate the thick hide of selfishness which we often witness when travelling on railways. It is not uncommon to hear people find fault with accidental, or necessary, delays of five minutes, and with being put in cars not equal to some parlors—though oftentimes better than those, who complain, have at home—when travelling on railroads, which have never yet paid a dividend, or but inadequate returns, if any, for the outlay. This species of fault finding is only justifiable, in our opinion, on lines that control large traffic, earn large returns upon the capital invested, yet neglect to afford just accommodations and facilities to those who are compelled to employ them at high prices.

It is not a just comparison to say that we ought to be satisfied now with \$4 and five hours, or \$3 and six hours—because twenty years ago it cost \$5 and twelve hours, between New York and Philadelphia—while we can travel on other roads, costing as much or more outlay, a greater distance for half the amount and in less time. Nor that because twenty or thirty dollars a ton was exacted, in 1815 or 1820, for merchandise that ten or twenty dollars should be now paid to a monopoly when the same service can be done in another direction, by competition, twice and a half the distance for five dollars.

In the case referred to by the editor of the Chronicle we fully concur.

"Reasonable" Accommodation in Railway Coaches.—It will perhaps have been noticed, as a coincidence from which sundry conclusions may be drawn, that in the last number of our paper, which contained some editorial

reference to various claims made against railways on behalf of "the public," there was also noticed the desire of "a correspondent" to have sleeping and writing accommodation furnished for travellers in the carriages. The nature and the grounds of the suggestion are both of them significant enough, and prove many things—among which two at least may be noted; the first, that "the public" is as much inclined as ever to regard the conveniences already given by railways as insufficient, and to expect that more shall be given by the owners, however poorly they may now be paid for what is already afforded. The second, that the effect of the comfort bestowed by railway conveyance as it is, has been to obliterate all memory of what travelling was before railways were. Nothing but an oblivion of the past could have allowed any correspondent in his senses to state as a "suffering," "the continuous cramp, consequent on a constrained sitting of twelve or fourteen hours on a journey from London to Edinburgh and Perth." To any one who could recollect what time was in the coach journey between these points; what the space allowed in the best coaches for the constrained sitting; what the price paid for the right to such constraint; the comparison between these items and railway dispatch, railway carriage space and the charge for both, would have suggested a rather different strain of remark, after the journey—especially at a time when the business now carried on with such infinite increase of comfort to the traveller is in many cases barely paying the original investor a 3 per cent. dividend on the money spent in affording this advantage.

But there is, it seems, no end to forgetfulness, and no limit to unreasonable expectation. In the very same note it comes out that what we have already been describing is not enough for our correspondent. Not only must railway coaches become dormitories, but they must be fitted up also as offices for commercial and literary men and gentlemen of the press, to whom the convenience of travelling swiftly and cheaply is not sufficient so long as it is possible to conceive that the power of transcribing their lubrications en route would be highly advantageous. It is really wearisome to repeat the answer to such unreasonable proposals; and scarcely worth while to do so, from the very circumstance that they are put forward without reason, and are therefore little apt to be silenced by it.

The answer however is, that such arrangements will not pay those who are asked to make them. To establish them for regular use, when wanted, would cause a great deal of expense, and much interfere with the ordinary business; and the public would not regularly make use of them at any charge, which could compensate for these objections. The only practical result of attempting to supply them would very shortly be that travellers in general would either take no advantage of them, or would expect to have them for nothing. This was found years ago in the case of the mails fitted up with the so called bed compartments; and so it will be found in any further attempts of the kind.

The bulk of those who travel will travel cheaply; and the very few who may now and then be willing to pay for extra accommodation do not come often enough, nor would they consent to pay enough to meet the charge of providing such extras so as always to be ready when occasionally wanted. It is quite time that it should be clearly understood how this matter now stands; and that new luxuries and conveniences, never dreamed of till now, cannot be expected, in addition to the substantial improvements already made in travelling by railway, at the prices beyond which the majority of railway travellers will not consent to go, and which prices are now far from returning a sufficient profit on all the works by which the travelling public is benefited.

General Railroad Law of New York.

An Act to Authorise the formation of Railroad Corporations. [Passed March 27, 1848.]

The People of the State of New York, Represented in the Senate and Assembly, do Enact as follows:

Section 1. Any number of persons not less than twenty-five being subscribers to the stock of any contemplated railroad, may be formed into a corporation for the purpose of constructing, owning, and maintaining such railroad, by complying with the following requirements: When stock to the amount of at least one thousand dollars for every mile of the road so intended to be built, shall be in good faith subscribed, and ten per cent. paid thereon, as hereinafter required, then the said subscribers may elect directors for the said company; thereupon, they shall severally subscribe articles of association, in which shall be set forth the name of the corporation, the number of years the same is to continue, which shall not exceed fifty years, the amount of the capital stock of the company; which shall be the actual cost of constructing the road, together with the cost for the right of way, motive power and every other appurtenance for the completion and running of said road, as nearly as can be estimated by competent engineers; the number of shares of which the said stock shall consist; the number of directors and their names, to manage the concerns of the company, who shall not be one-half in the numbers of the stockholders, and shall hold their offices until others are elected; the place from and to which the proposed road is to be constructed; and each county into or through which it is intended to pass, and its length as near as may be; and the names of five commissioners to open books of subscription to the stock; each subscriber to such articles of association, shall subscribe thereto his name, place of residence, and the number of shares of stock taken by him in such company. The said articles of association may, on complying with the provisions of the next section, be filed in the office of the secretary of state, and thereupon the persons who have so subscribed, and all persons who shall, from time to time become stockholders in such company, shall be a body corporate, by the name specified in such articles, and shall possess the powers

and privileges, and be subject to the provisions contained in titles three and four, chapter eighteen, of the first part of the revised statutes.

Sec. 2. Such articles of association shall not be filed in the office of the secretary of state, until ten per cent. on the amount of the stock subscribed thereto, shall have been actually and in good faith paid in cash, to the directors named in such articles, nor until there is endorsed thereon, or annexed thereto an affidavit made by at least three of the directors named in such articles, that the amount of stock required by the first section has been subscribed, and that ten per cent. on the amount has actually been paid in.

Sec. 3. A copy of any articles of associations filed in pursuance of this act, with a copy of the affidavit aforesaid, endorsed thereon, or annexed thereto, and certified to be a copy by the secretary of this state, or his deputy, shall in all courts and places be presumptive evidence of the incorporation of such company, and of the facts therein stated.

Sec. 4. When the certificate shall have been filed as aforesaid, the persons who shall have signed and acknowledged the same, and their successors, shall be a body politic and corporate, by the name stated in such certificate; and shall be capable of suing and being sued, and may have a common seal, and may make and alter the same at pleasure; and be capable in law of purchasing, holding and conveying any real and personal estate whatever, necessary for the construction of such road, and for the erection of all necessary buildings, yards and appurtenances for the use of the same.

Sec. 5. The commissioners for opening books of subscription, named in the act of incorporation shall from time to time, after the company shall be incorporated, open books of subscription to the capital stock of the company in such places, and after giving such notice as a majority of them shall direct, which books of subscription shall be kept open until all the capital stock shall be subscribed, if the corporation shall so long exist, and in case a greater amount of stock shall be subscribed than the whole capital stock of such company, the commissioners shall distribute such capital stock as equally as possible among the subscribers, but no share thereof shall be divided in making such distribution, nor shall a greater number of shares be allotted to any subscriber than such subscriber shall have subscribed for.

Sec. 6. As soon as practicable after such capital stock shall have been subscribed and distributed as aforesaid, the commissioners to receive subscription thereto shall appoint time and place for the meeting of the stockholders to choose electors. Such meeting shall be held in one of the counties in or through which such railroad is proposed to be constructed; and notice thereof shall be given by said commissioners, by public notice to be published, not less than twenty days previous thereto in the state paper, and a newspaper published in each county through which the said road shall be intended to run, in which a newspaper shall be published. Thirteen

directors shall be chosen at such meeting by ballot and by a majority of the votes of the stockholders being citizens of the United States, and being present in person or by proxy; and every such stockholder being so present at such election, or at any subsequent election of directors, shall be entitled to give one vote for every share of stock which he shall have owned for the thirty days next preceding such election; but no stockholder shall vote at any such election upon any stock except such as he shall have owned for such thirty days. No person shall be a director or unless he shall be a stockholder owning stock absolutely and in his own right, and qualified to vote for directors at the election at which he shall be chosen, nor unless he shall be a citizen and resident of this state; and at least seven of the directors shall at the time of their election, be residents of the counties in or through which the route of such railroad shall run. The directors shall be directors for one year, and till others are elected in their places.

Sec. 7. The commissioners named in the last preceding section shall be inspectors of the first election of directors, shall openly count the votes and declare the results, and shall, within ten days hereafter, file a certificate thereof, subscribed by them or a majority of them, in the office of the secretary of state and in the office of the clerk of each county in or through which such railroad shall be proposed to be constructed, and shall also deliver to the treasurer of such company all moneys received by such commissioners on subscription to such capital stock, and all books and papers in their possession relating to such subscriptions. All subsequent elections shall be held at such time and place, in one of these counties through which such railroad shall pass, as shall be directed by the by-laws of the company, and the provisions of the second article of the second title of the eighteenth chapter of the first part of the revised statutes shall apply to corporations formed under this act.

Sec. 8. In case it shall happen at any time, that an election of directors shall not be made on the day designated by the by-laws of said company, when it ought to have been made, the company for that reason shall not be dissolved, if, within ninety days thereafter, they shall hold an election for directors in such manner, as shall be provided for by the said by-laws. There shall be a president of the company, who shall be chosen by and from the directors, and also such subordinate officers as the company by its by-laws may designate, who may be elected or appointed and required to give such security for the faithful performance of the duties of their office as the company by its by-laws may require.

Sec. 9. It shall be lawful for the directors to call in and demand from the stockholders respectively, all sums of money by them subscribed, at such times and in such payments or instalments as the directors shall deem proper, under the penalty of forfeiting the shares of stock subscribed for, and all previous payments made thereon, if payment

shall not be made by the stockholders within sixty days after a personal demand or notice requiring such payment, shall have been published for six successive weeks in a newspaper published in each county through which said road shall be laid out, in which a newspaper shall be published.

Sec. 10. The directors of such company shall have power to make by-laws for the management and disposition of stock, property, and business affairs of such company, not inconsistent with the laws of this state, and prescribing the duties of officers, artificers, and servants that may be employed, for the appointment of all officers for carrying on all the business within the objects and purposes of such company.

Sec. 11. The stock of such company shall be deemed personal estate, and shall be transferable in the manner prescribed by the by-laws of the company; but no shares shall be transferable until all previous calls thereon, shall have been fully paid in, or the said shares shall have been declared forfeited for the non-payment of calls thereon. And it shall not be lawful for such company to use any of their funds in the purchase of any stock in their own, or in any other corporation.

Sec. 12. All the stockholders of any such company that shall be hereafter incorporated under this act, shall be severally individually liable to the creditors of such company, to an amount equal to the amount of stock held by them respectively, for all debts and contracts made by such company, until the whole amount of the capital stock fixed and limited by the company in manner aforesaid, shall have been paid in, and a certificate thereof shall have been made and recorded as prescribed in the following section; and shall be jointly and severally liable for all debts that may be due and owing to all their laborers, servants, and apprentices, for services performed for such corporation, but not be liable to an action therefor, before an execution shall be returned, unsatisfied in whole or in part against the corporation, and then the amount due on said execution shall be the amount recoverable with costs against said stockholders. The corporation shall require sufficient security from the contractors for the payment for all labor performed in constructing said road by persons in their employ. All railroad companies in this state shall be liable to the day laborers employed by contractors for labor actually performed on their respective roads, but such liability shall not exist, unless the persons having such claim, shall within thirty-five days after the performance of such labor, notify the engineer in charge of the section on which the labor was performed, that he or they have not been paid by the contractors.

Sec. 13. The president and a majority of the directors, within thirty days after the payment of the last instalment of the capital stock so fixed and limited by the company, shall make a certificate stating the amount of the capital so fixed and paid in; which certificate shall be signed by the president and a majority of the directors, and sworn to

by the president and secretary; and they shall, within the said thirty days, file and record the same in the office of the secretary of state.

Sec. 14. If the directors of any such company shall declare and pay any dividend when the company is insolvent, or any dividend, the payment of which would render it insolvent, they shall be jointly and severally liable for all the debts of the company then existing, and for all that shall be hereafter contracted, so long as they shall respectively remain in office.

Provided, That if any of the directors shall be absent at the time of making the dividend, or shall object thereto, and shall within thirty days thereafter, or after his return, if absent, file a certificate of their absence, or objection, in writing, with the clerk of the company, and with the clerk of the county in which the principal office of said company is located, they shall be exempt from the said liability.

Sec. 15. If any certificate or report made, or public notice given by the officers of any such company, in pursuance of the provisions of this act shall be false in any material representation, all the officers who shall have signed the same, shall be jointly and severally liable for all the debts of the company contracted while they are stockholders or officers thereof.

Sec. 16. No person holding stock in any such company, as executor, administrator, guardian, or trustee, and no person holding such stock as collateral security, shall be personally subject to any liability as stockholders of such company: but the person pledging such stock shall be considered as holding the same, and shall be liable as a stockholder accordingly, and the estates and funds in the hands of such executor, administrator, guardian, or trustee, shall be liable in like manner, and to the same extent as the testator or intestate or the ward or persons interested in such trust-fund would have been, if he had been living and competent to act, and held the same stock in his own name.

Sec. 17. Every such executor, administrator, guardian, or trustee, shall represent the share of stock in his hands, at all meetings of the company, and may vote accordingly as a stockholder: and every person who shall pledge his stock as aforesaid, may nevertheless, represent the same at all such meetings, and may vote accordingly as a stockholder.

Sec. 18. Every such company, before proceeding to construct any part of their road in to or through any county named in their certificate of association shall make a map and profile of the route intended to be adopted by such company, which shall be certified by a majority of the directors, and filed in the office of the county clerk of such county for the inspection and examination of all parties interested therein, and shall also deposit five per cent on the capital stock subscribed with the comptroller of this state for the use of said company to be applied in the payment of any awards of the commissioners appointed to ascertain the compensation for lands, real estate, or property taken for said road, and

to be paid on order of such commissioners.

Sec. 19. Every such corporation shall possess the general powers, and be subject to the general liability and restrictions expressed in the third title of the eighteenth chapter of the first part of the revised statutes, and also the special powers following, that is to say:

1. To cause such examinations and surveys for the proposed railroad to be made, as may be necessary to the selection of the most advantageous route for the railroad; and for such purpose, by their officers, agents and servants, to enter upon lands or waters of any person, but subject to responsibility for all damages which they shall do thereto.

2. To receive, hold, and take such voluntary grants and donations of real estate and other property as shall be made to it, to aid in the construction, maintenance, and accommodation of such railroad, but the real estate thus received by voluntary grant, shall be held and used for the purpose of such grants only.

3. To purchase, and by voluntary grants and donations receive and take, and by its officers, engineers, and surveyors, and agents enter upon and take possession of and hold and use all such lands and real estate and other property as may be necessary for the construction and maintenance of its railroad and the stations, depots, and other accommodations necessary to accomplish the object for which the corporation is created; but not until the compensation to be made therefor, as agreed upon by the parties, or ascertained as hereinafter prescribed, be paid to the owner or owners thereof, or deposited in court or in bank, as hereinafter directed unless the consent of such owner be given to enter into such possession; but nothing herein contained shall be held as repealing, or in any way affecting the act entitled "An act authorising the construction of railroads upon Indian lands," passed May 12, 1836.

4. To lay out its road not exceeding six rods wide, and to construct the same; and for the purposes of cutting, embankments, and procuring stone and gravel, may take as much more land within the limits of its charter, in the manner provided hereinafter, as may be necessary for the proper construction and security of the road.

5. To construct their road across or upon any stream of water, watercourse, road, highway, railroad or canal, which the route of its road shall intersect; but the corporation shall restore the stream or water course, road or highway, thus intersected, to its former state or in a sufficient manner not to have impaired its usefulness, and to be subject to the power vested in the canal commissioners by the twenty-fourth section of the ninth title of the ninth chapter of the first part of the revised statutes; but nothing in this act contained shall be construed to authorise the erection of any bridge or any obstruction across, in or over any navigable stream.

6. To cross, intersect, join, and unite its railroad with any other railroad before constructed, at any point on its route, and upon the grounds of such other railroad company, with the necessary turn-outs, sidings and

switches, and other conveniences, in furtherance of the objects of its connections. And every company whose railroad is or shall be hereafter intersected by any new railroad shall unite with the owners of such new railroad in forming such intersections and connections, and grant the facilities aforesaid. And if the two corporations cannot agree upon the amount of compensation to be made therefor, or the points and manner of such crossings and connections, the same shall be ascertained and determined by commissioners, to be appointed by the court as is provided hereinafter in respect to the taking of lands.

7. To take transports, carry, and convey persons and property on their railroad by the power and force of steam, of animals, or any mechanical powers, or by any combination of them, and receive tolls or compensation therefor.

8. To erect and maintain all necessary and convenient buildings, stations, depots, and fixtures, and machinery for the accommodation and use of their passengers, freights and business, and obtain and hold the lands necessary therefor.

9. To regulate the time and manner in which passengers and property shall be transported, and the tolls and compensation to be paid therefor, but such compensation for any passenger and his ordinary baggage, shall not exceed three cents a mile, unless by special act of the legislature, and shall be subject to alteration as hereinafter provided.

10. To borrow money to be applied to the construction of their railroad and fixtures, and purchase of engines and cars.

Sec. 20. Any number of persons not less than thirteen, intending to organise a corporation under the provisions of this act, and every company that may hereafter organise under this act, may present a petition to the legislature stating the place from and to which they propose to construct their road, and its location and route with reasonable certainty, or that they intend to run the said road on the most direct and eligible route between the points of terminus, and praying the legislature to determine whether the construction of said proposed road will be of sufficient public use to justify the taking of private property for the construction of the same; and if the legislature shall determine and decide by law that such proposed road will be of sufficient public utility to justify the taking of private property for constructing and maintaining such road under the provisions of this act, then such company when organised may enter upon, take possession of and use all such land, real estate and property as may be required for the construction and maintenance of their railroad, and the convenient accommodations appertaining to the same, making compensation in the manner hereinafter provided, for all land real estate and property thus taken possession of and used, except such as may be voluntarily given to or purchased at an agreed price by the said corporation. Whenever the said corporation shall not have acquired by gift or purchase, any land, real estate, or

property so required as aforesaid, or which may be affected by any operation connected with such construction and maintenance, the said corporation may present to the supreme court of the district where the said lands, real estate or property shall lie, a petition signed by its attorney or agent, describing with convenient accuracy and certainty, by map or otherwise, the lands, real estate or property so required to be taken or to be affected as aforesaid, setting forth the name and residence of each owner or other person interested therein as owner, tenant, lessee or incumbrancer, as far as known to such attorney or agent, or appearing of record; and praying the appointment of commissioners to ascertain the compensation to be made to such owners and persons interested for the taking or injuriously affecting such land, real estate or property as aforesaid. The court shall have satisfactory evidence that notice of an intended application, and the time and place thereof for the appointment of commissioners of appraisal between said corporation and the owners and persons interested in such lands, real estate and property had been given at least ten days previously to such owners personally, or to some person of suitable age, at their residences or on the premises, or by the publication thereof in a newspaper printed in the county in which such land, real estate or property may lie; such publication to be allowed only in respect to owners who shall appear by affidavit to have no residence in the county known to such agent or attorney, whereat such notice could be delivered as aforesaid. The court may adjourn the proceedings from time to time, shall direct any further notice thereof to be given that may seem proper; shall hear proofs and allegations of all parties interested touching the regularity of the proceedings, and shall by an entry in its minutes, appoint five competent and disinterested persons commissioners to ascertain such compensation as aforesaid, specifying in such entry a time and place for the first meeting of such commissioners. The said commissioners before entering upon the duties of their office, shall take the oath prescribed by the twelfth article of the constitution of this state; any one of them may administer oaths to witnesses produced before them; and may adjourn, and may hold meetings for that purpose. Whenever they shall meet to hear proofs or allegations, unless by appointment of the court, or pursuant to adjournment, they shall cause reasonable previous notice of such meetings to be given to the said owners or parties interested, or their attorney or agent, and may each of them issue subpoenas and compel witnesses to appear and testify. They shall hear the proofs and allegations of the parties, and any three or more of them shall after viewing the premises, without fear, favor or partiality ascertain and certify the compensation proper to be made to the said owners and parties interested for the land, real estate and property so to be taken or injuriously affected as aforesaid, without any deduction or allowance on account of any real or supposed benefit or advantage which such owners or parties inter-

ested may derive from the construction of such road; and may in their direction assess a separate, reasonable sum in favor of the owners and parties interested, or of any person appointed by the court to appear as attorney for them, for costs, expenses, and reasonable counsel fees. They or a majority of them, shall make, subscribe and file with the clerk of the county in which such lands, real estate or property shall lie, a certificate of their said ascertainment and assessment, in which such land, real estate and property shall be described by map or otherwise, with convenient accuracy and certainty. The court upon such certificate and due proof that such compensation and separate sums, if any be certified, have been paid by the parties entitled to the same, or have been deposited to the credit of such parties in some bank, for that purpose approved by the court, shall make and cause to be entered in its minutes a rule describing such lands, real estate and property in manner aforesaid, such ascertainment of compensation, with the mode of making it, and such payment or deposit of the same compensation as aforesaid: a certified copy of which rule shall be recorded and indexed in the proper clerk's register's office, in the like manner and with like effect, as if it were a deed or conveyance from the said owners and parties interested to the said corporation. Upon the entry of such rule the said corporation shall become entitled to use and occupy all lands, real estate and property described in said rule, as required to be taken as aforesaid, during the continuance of the corporation, by this, or any subsequent act; and may take possession of, hold and use the same for the purposes of said road, and shall thereupon be discharged from all claims for damages by reason of any matter specified in said petition, certificate or rule of court. If at any time after an attempted or actual ascertainment of compensation under this or any other act, or any purchase by, or donation to the said corporation of any lands for the purposes aforesaid, it shall appear that the title thereby acquired to all or any part of such lands for the use of said road, or of said corporation, shall fail to be deemed defective the said corporation may proceed anew to perfect such title by procuring an ascertainment of the compensation proper to be made to any person or persons whose title, claim or interest in or lien upon such lands shall not have been compensated or extinguished according to law, and by making payment thereof in the manner hereinbefore provided as near as may be. And at any stage of such new proceedings or of any proceedings under this act the court may by a rule in that behalf made, authorize the said corporation, if already in possession, to continue in the use or possession, and if not in possession, to take possession of and use such premises during the pendency and until the final conclusion of such proceedings; and may stay all actions or proceedings against such corporation on account thereof, provided such corporation shall pay a sufficient sum into court, or give approved security to pay the compensation in that behalf when ascertained; and in every

case where possession shall be so authorized, it shall be lawful for the owner or owners to conduct the proceedings to a conclusion; if the same shall be delayed by the said company. The said commissioners shall be entitled to receive from said corporation their reasonable disbursements and a compensation not exceeding two dollars for each day actually employed by them in the discharge of their duties; such compensation and disbursements to be taxed and allowed by the court. If any commissioner so appointed shall die, be unable or fail to serve, the court may appoint another in his place on reasonable notice of the application to be approved by the court. The proceedings hereby authorized, may be had in the supreme court, in a county court where the lands lie, and all motions to the supreme court for the appointment of commissioners, shall be made at a general or special term thereof in such county, or in an adjacent county. The said commissioners shall file their said certificate in the county where the lands to be affected may lie, or in any adjacent county; and any clerk shall transfer the same and proceedings connected therewith, to the clerk of the county in which the land to be affected may lie, or of any county adjacent thereto; whenever such commissioners or clerk shall be so required by said corporation, its agent or attorney, provided that nothing in this section contained shall prevent the present legislature, before adjournment, from acting upon and determining the public use of such proposed railroads as have been or may be applied for at the present session.

Sec. 21. In case any married woman, infant, idiot or insane person, or any unknown owner or owners not personally notified to appear, and who shall not appear after such notice on the appointment of commissioners, shall be interested in any such lands, real estate and property, the court shall appoint some proper person to appear before the said commissioners and act as attorney for and in behalf of such married women, infant, idiot, insane person, unknown owner or non-appearing owner, not personally served with notice.

Sec. 22. If at any time after the location of the track of said road, in whole or in part, and the filing of the map thereof it shall appear to the directors of the said company, that the line in some parts thereof may be improved, it shall be lawful for the said directors from time to time alter the line and cause a new map to be filed in the office where the map showing the first location, is, or shall be filed, and may thereupon proceed to take possession of the lands embraced in such new location, that may be required for the construction and maintenance of said road on such new line, and the convenient accommodations appertaining to the same, and acquire the same either by agreement with the owner or owners, or by such proceedings, as near as may be, as are authorized under the preceding sections of this act, and use the same in place of the line for which the new line is substituted.

Sec. 23. Whenever the track of said rail-

road shall cross a railroad or highway, such railroad or highway may be carried under or over the track, as may be found most expedient, and in cases where an embankment or cutting shall make a change in the line of such railroad or highway desirable, with a view to a more easy ascent or descent, the company may take such additional lands for the construction of such road or highway on such new line, as may be deemed requisite by said directors. Unless the lands so taken shall be purchased or voluntarily given for the purposes aforesaid, compensation therefor shall be ascertained in the manner in this act provided as near as may be, and duly made by the said corporation to the owners and persons interested in such lands the same when so taken, on compensation made to become part of such intersecting railroad or highway in such manner and by such tenure as the adjacent parts of the same highway may be held for highway purposes.

Sec. 24. If any such corporation shall, for its purposes aforesaid, require any land belonging to the people of this state, or to any of the counties or towns, the commissioners of the land office, and county and town officers respectively having charge of such land, may grant such lands to such corporations, for a compensation which shall be agreed upon between them, and if they shall not agree upon a sale and price, the same may be taken by the corporation as is before provided in respect to other cases.

Sec. 25. If the transportation of property on the railroad of any company formed under this act, running parallel or nearly parallel to any canal of the state, and within thirty miles of said canal, other than ordinary baggage of passengers transported thereon, shall in the opinion of the legislature, divert business of transporting property from any of the canals belonging to this state, the company owning such railroad shall pay to the canal fund, on all property transported upon its railroad other than the ordinary baggage of passengers transported thereon, the same tolls that would have been payable to the state, if such property other than such baggage, had been transported on any of such canals. And every such company shall make returns, at such time, and in such manner, as the commissioners of the canal fund shall prescribe, of all the property transported on its railroad, except the ordinary baggage of passengers transported on the same. And the said commissioners are hereby authorized and required to prescribe the manner in which such tolls so payable to the canal fund by such company, shall be collected and paid, and to force the collection and payment thereof, and to make such regulations as they shall deem proper for that purpose; and every such company that shall neglect or refuse to comply with any such regulation shall, forfeit to the people of this state the sum of five hundred dollars for every day it shall so neglect or refuse; and in every case of such forfeiture, it shall be the duty of the attorney general to prosecute such company for the penalty, in the name of the people.

Sec. 26. If the legislature of this state shall,

after the expiration of ten, and within fifteen years from the completion of any such road, make provision by law for the repayment to any such company of the amount expended by them in the construction of the said road, together with all monies for permanent fixtures and the actual value of the cars, engines, machinery and chattles and real property then in use for the said road, with interest on such sums at the rate of ten per cent. per annum, together with all monies expended by said company for repairs or otherwise, for the purposes of said road, after deducting the amount of toll, freight and passage money received on said road, then the said road with all its fixtures and appurtenances aforesaid shall vest in and become the property of the people of this state.

Sec. 27. Every conductor, baggage master, engineer, brakeman or other servant of any such railroad corporation employed in a passenger train, or at stations for passengers, shall wear upon his hat or cap, a badge, which shall indicate his office, and the initial letters of the style of the corporation by which he is employed. No conductor or collector, with out such badge, shall demand, or be entitled to receive from any passenger, any fare, toll or ticket, or exercise any of the powers of his office, and no other of the said officers or servants without such badge, shall have any authority to meddle or interfere with any passenger, his baggage or property.

Sec. 28. Every such corporation shall make an annual report to the state engineer and surveyor, of the operations of the year, ending on the first day of January, which report shall be verified by the oaths of the treasurer, and acting superintendent of operation, and filed in his office by the twentieth day of January in each year, and shall state:

1. The capital stock and the amount actually paid in.

2. The amount expended for the purchase of land, for the construction of the road, for buildings, and for engines and cars, respectively.

3. The amount and nature of its indebtedness and the amount due the corporation.

4. The amount received for the transportation of passengers, of property, of the mails, and from all other sources.

5. The amount of freight, specifying the quantity in tons, of the products of the forest, of animals, of vegetable food, other agricultural products, manufactures, merchandise, and other articles.

6. The amount paid for repairs, engines, cars, building and salaries.

7. The number and amount of dividends, and when paid.

8. The number of engine houses and shops—of engines and cars, and their character.

9. The number of miles run by passenger, freight and other trains respectively.

10. The number of men employed, and their occupation.

11. The number of persons injured in life or limb, and the cause of such injuries.

12. Whether any accidents have arisen from carelessness or negligence of any person in the employment of the corporation, and

whether such person is retained in the service of the corporation.

Sec. 29. Any such corporation which shall neglect to make such report, shall be liable to a penalty of two hundred and fifty dollars, to be sued for in the name of the people for their use.

Sec. 30. The legislature may when any such railroad shall be opened for use, from time to time alter or reduce the rates of toll, freight, fare or other profits upon such road; but the same shall not, without the consent of the corporation, be so reduced, as to produce with said profits less than ten per centum per annum, on the capital actually paid in; nor unless on an examination of the amounts received and expended, to be made by the state engineer and surveyor and the comptroller, they shall ascertain the net income derived by the company from all sources for the year then last past, shall have exceeded an annual income of ten per cent, upon the capital of the corporation actually paid in.

Sec. 31. Any such corporations shall, when applied to by the postmaster general, convey the mail of the United States on their road or roads respectively; and in case such corporation shall not agree as to the rate of transportation therefor, and as to the time, rate of speed, manner, and condition of carrying the same, it shall be lawful for the governor of this state to appoint three commissioners, who, or a majority of whom, after fifteen days' notice in writing of the time and place of the meeting to the corporation, shall determine and fix the prices, terms and conditions aforesaid; but such price shall not be less for carrying said mails in the regular passenger trains than the amount which such corporation would receive as freight on a like weight of merchandise transported in their merchandise trains, and a fair compensation for the postoffice car. And in case the postmaster general shall require the mail to be carried at other hours and at a higher speed than the passenger trains be run at, the corporation shall furnish an extra train for the mail, and be allowed an extra compensation for the expenses and wear and tear thereof, and for the service to be fixed as aforesaid.

Sec. 32. If any passenger shall refuse to pay his fare, or toll, it shall be lawful for the conductor of the train and the servants of the corporation to put him out of the cars at any usual stopping place the conductor shall select.

Sec. 33. Every such corporation shall start and run their cars for the transportation of passengers and property at regular times to be fixed by public notice, and shall furnish sufficient accommodation for the transportation of all such passengers and property, as shall within a reasonable time previous thereto, offer or be offered for transportation, at the place of starting and the junctions of other railroads, and at sidings and stopping places, established for receiving and discharging way passengers and freight; and shall take, transport and discharge such passengers and property at, from, and to such places, on the due payment of the tolls, freight or fare legally authorized therefor.

Sec. 34. In case of refusal by such cor-

poration or their agents so to take and transport any passenger or property, or to deliver the same or either of them at the regular or appointed time, such corporation shall pay to the party aggrieved, all damages which shall be sustained thereby with costs of suit.

Sec. 35. A check shall be affixed to every package or parcel of baggage, when taken for transportation by the agent or servant of such corporation, and a duplicate thereof given to the passenger or person delivering the same on his behalf. And if such check be refused on demand, the corporation shall pay to such passenger the sum of ten dollars to be recovered in any action of debt, and further, no fare or toll shall be collected or received from such passenger, and if such passenger shall have paid his or her said fare, the same shall be refunded by the conductor in charge of the train; and on producing said check, if his or her baggage shall not be delivered to him or her, he or she may himself or herself be a witness in any suit brought by him or her, to prove the contents and value of said baggage.

Sec. 36. If forming a passenger train, baggage, or freight, or merchandise or lumber cars, shall not be placed in rear of passenger cars; and if they, or any of them shall be so placed, and any accident shall happen to life or limb, the officer or agent who so directed, or knowingly suffered such arrangement, and the conductor and engineer of the train, shall each and all be held guilty of intentionally causing the injury, and be punished accordingly.

Sec. 37. A bell of at least thirty pounds weight shall be placed on each locomotive engine, and be rung at the distance of at least eighty rods from the place where the railroad shall cross any road or street, and be kept ringing until it shall have crossed such road or street; under a penalty of fifty dollars for every neglect, to be paid by the corporation owning the railroad, one half thereof to go to informer and the other half to the state, and also be liable for all damages which shall be sustained by any person, by reason of such neglect.

Sec. 38. Every such corporation shall cause boards to be placed, well supported by posts or otherwise, and constantly maintained across each public road or street where the same is crossed by the railroad, on the same level; said boards shall be elevated so as not to obstruct the travel, and to be easily seen by travellers, and on each side of such boards shall be painted in capital letters of at least the size of nine inches each, the words "railroad crossing, look out for the cars while the bell rings;" but this section shall not apply to streets in cities or villages, unless the corporation be required to put up such boards by the officers having charge of such streets.

Sec. 39. If any person shall, while in charge of a locomotive engine running upon the railroad of any such corporation, or while acting as the conductor of a car or train of cars on any such railroad, be intoxicated, he shall be deemed guilty of a misdemeanor.

Sec. 40. If any person shall wilfully do or cause to be done, any act or acts whatever,

whereby any building construction, or work of any such corporation, or any engine, machine, or structure or any matter or thing appertaining to the same, shall be stopped, obstructed, impaired, weakened, injured, or destroyed, the person or persons so offending shall be guilty of a misdemeanor, and shall forfeit and pay to the said corporation, treble the amount of damages sustained by means of such offence.

Sec. 41. All penalties imposed by this act except the penalty imposed by the twenty-fifth section thereof, may be sued for by any district attorney, and in the name of the people of the state of New York, and if such penalty be for a sum not exceeding one hundred dollars, then such suit may be brought before a justice of the peace.

Sec. 42. Such corporation shall erect and maintain fences on the sides of the road, of the height and strength of a division fence as required by law, with openings and gates therein, and farm crossings of the road for the use of the proprietors of lands adjoining such railroad, and also construct and maintain cattle guards at all crossings, suitable and sufficient to prevent cattle and animals from getting on the railroad. Until such fences and cattle guards shall be duly made, the corporation and its agents shall be liable for all damages which shall be done by their agents or engines to cattle, horses or other animals thereon, and after such fences and guards shall be duly made, the corporation shall not be liable for any such damages, unless negligently or wilfully done, and if any person shall ride, lead, or drive any horse or other animal upon such road, and within such fences and guards other than at farm crossings, without the consent of the corporation, he shall for every such offence forfeit a sum not exceeding ten dollars, and shall also pay all damages which shall be sustained thereby to the party aggrieved.

Sec. 43. Every such corporation shall, within a reasonable time after their road shall be located, cause to be made:

1. A map and profile thereof, and of the land taken or obtained for the use thereof, and file the same in the office of the state engineer and surveyor. And also like maps of the parts thereof located in different counties, and file the same in offices for recording deeds, in the county in which such parts of said road shall be, there to remain on file as of record forever. Every such map shall be drawn on a scale and on paper, to be designated by the state engineer and surveyor, and certified and signed by the president of such corporation.

2. A certificate specifying the line upon which it is proposed to construct the railroad and the grades and curves.

Sec. 44. If any such corporation shall not within two years after its incorporation, begin the construction of its road, and expend thereon ten per cent on the amount of its capital, and finish the road and put it in full operation in five years, its act of incorporation shall become void.

Sec. 45. The legislature may, at any time amend or annul or repeal any incorporation

formed or created under this act; but such amendment or repeal shall not, nor shall the dissolution of any such corporation, its stockholders or officers, for any liability which shall have been previously incurred.

Sec. 46. All existing railroad corporations within this state, shall respectively have and possess all the powers and privileges, and be subject to all the duties, liabilities, and provisions contained in this act, so far as they shall be applicable to their present conditions, and not inconsistent with their several charters; and all railroad companies that are now constructing their roads, may acquire title to lands necessary for that purpose, under the provisions of this act: *Provided*, that nothing in this act contained, shall authorise any existing railroad company to carry freight without the payment of canal tolls, pursuant to the act entitled "An act relating to the transportation of freight on certain railroads," passed May 12, 1847.

Sec. 47. This act shall take effect immediately.

*State of New York, } I have compared the
Secretary's Office. } preceding with the original law on file in this office, and do certify that this is a correct transcript therefrom and of the whole of said original.*

CHRISTOPHER MORGAN, Sec. of State.

COMPRESSED-AIR LOCOMOTION ON COMMON ROADS.

Another exhibition of the capabilities of the locomotive engine of Baron Von Rathen, worked by compressed-air, took place on Thursday week, on the road between Putney and Wadsworth. This trial, which was the third, was for testing the apparatus for working the air expansively, which, however, was unfortunately, leaky, and much of the power was lost; but for which accident, attributable to the absence of the regular workmen from the College manufactory, a much greater speed would have been attained. As it was, however, the carriage, weighing 3 tons, and carrying from 25 to 30 persons, started in good style, and kept pace with former experiments, as to time and distance: the motion was very regular, and the machinery stood well—the only casualty being the above leakage. The patentee considers he has now completely solved the problem of the practicability of employing compressed-air in locomotion, and regulating it as to distance, speed, load, nature of road, &c.—on which, with the greater or less perfection in the construction of the machinery, its success, of course, depends. He is prepared to show to mathematical demonstration, that he can embody sufficient power in this model air-carriage to carry 4½ tons, including carriage, 10 miles in one hour on common roads, or a train of 45 tons in the same time the same distance on a railroad; but if carried out on a large scale on the latter, he contends that the system would effect a saving of 75 per cent. over the steam locomotive. These trials with heavy loads are of much interest and worthy of encouragement, as the first efforts of a new system; and we shall feel much pleasure in continuing to report their progress.—*London Mining Journal.*

WROUGHT IRON BOW-STRING GIRDERS FOR BRIDGES.



The above diagram represents a wrought iron rib, or girder, now being employed in the construction of bridges, of 120 and 130 feet span, at Messrs. Fox, Henderson & Co's establishment, the London Works, near Birmingham, under the superintendence of Mr. Joseph Lock, C. E., M. P.; and bridges of similar construction will shortly be erected on the extension line of the Blackwall railway. On Wednesday last one of them was publicly tested at the works, in the presence of Capt. Simmons and Wynne, R.E., the government inspectors of railways; Lieut. Douglas Galton, R. E., the secretary to the government board of commissioners for inquiring into the strength of iron, was present on behalf of the board; Mr. G. F. Muntz, M. P., the mayor of Birmingham (Mr. C. Geach), Messrs. C. Vignoles, W. Fairbairn, J. Whitworth, C. B. Ker, W. J. Stanton, C. H. Wild, Professor Cowper, and between 80 and 90 other scientific gentlemen and engineers attended to witness the trial. The bridge rib had been erected, ready for proof, in an open space in front of the London works, and presented a clear span of 120 feet between the bearings. It is constructed entirely of wrought iron, and consists of an arch of boiler plates and angle iron, tied across at the ends by horizontal bars—and the tie bars are connected with the arch by vertical standards, and by a double system of diagonals, which have the effect of distributing over the whole curve of the arch the action of weights placed on, or passing over any point of the bridge. The proof was applied by loading the bridge rib with 240 tons of rails, bars, etc., and it produced the following satisfactory results, as the weight was applied:

Weight in tons of rails, etc., placed on the cross girders.	Extreme amount of deflection produced at centre of arch.
Tons.	Inches.
344.....	0 1-16
681.....	0 5-8
1021.....	1 5-16
137.....	2 1-8
1711.....	3 3-4
2051.....	3 5-16
240.....	3 11-16ths.

The proof weight was fixed at 240 tons, as being double the greatest load which the bridge can by any possibility be ever required to bear. A heavy goods' train weighs less than half a ton per foot lineal; a train, consisting entirely of locomotive engines (which would be the heaviest of all possible trains) would only weigh one ton per foot lineal, and, consequently, would place a load of not more than 120 tons on a bridge of a 120 feet span. The new bowstring bridge has, therefore, been proved to twice the weight which ever can be placed upon it, and to four times the weight which it is ever likely to have to bear. It is scarcely necessary to add, that the trial gave great satisfaction to all parties. These ribs are adapted

for large spans, in cases where either headway is of importance, or where sufficient abutment cannot be obtained, without very heavy expense. Bridges constructed of these ribs may be employed with perfect safety for very large spans, in precisely the same manner as ordinary girders are used for small ones. The strength of the bridge depends upon the rib, or arch, and on the tie bars by which the extremities are held together.—The vertical standards are introduced, partly to suspend the load from the arch, and partly to obtain longitudinal and transverse firmness; they also support the tie-bars. The diagonals are employed for the purpose of preventing undue deflection in the rib, when the bridge is unequally loaded. The rib itself is constructed of boiler-plates and angle-iron riveted up in the form of a hollow trunk; it is strongly tied together, so that the full section of the plates and angle-iron may be depended upon to resist the crushing strain. In order to give this trunk additional lateral stiffness, the side plates, which form the top are made to overhang, and are strengthened on the edges by angle-iron, &c. The tie-bars measure about 8 in., by 1 in. each, and are introduced in sufficient numbers to take the whole strain. The ribs are supported at each end on cast-iron shoes fixed at the one end to the piers, and mounted at the other on sliding frames and rollers. This arrangement provides, not only for expansion and contraction, but also for motion under a very heavy load. The action of these parts under proof has been found to be perfect. Cross girders, constructed entirely of wrought-iron, are suspended between the ribs. Besides the above experiments on the Blackwall extension bridge, the two ribs for a bridge, 130 feet span, have been proved with a weight of 260 tons—i. e. 2 tons per foot lineal—each put on in dead weight, by suspending cast-iron cross girders underneath the points where the wrought iron girders are intended to be attached, and by placing thereon 260 tons of rails, pigs, bars, etc. In proving, the load was first put on two points at one end, then on the next two points, and so on, in order to produce, as nearly as possible the same effect as the passage of a heavily loaded train. In the case of one rib, the load was allowed to remain for several days, and then removed. After the lapse of a few days, the same load was replaced, and again allowed to remain some days. The results were very satisfactory.

During the process of proving, observations were taken with a dumpy level, placed at a distance; and the sinking of the bearing plates in the ground was observed and noted. The bridges now being constructed, are intended to carry a double line of rails; and the test applied is, therefore, equal to two tons to each foot lineal of single line of way.—

This test was fixed upon in the belief that the greatest possible load which can in working be placed upon each line of rails, is about one ton per foot lineal; and that, to provide for the additional strain caused by the rapid motion, etc., of the practical load of trains passing, the proof of weight ought to be fixed at double the greatest possible load. In very large spans, (say 400 feet and upwards,) it would be necessary on many accounts, to use four ribs, instead of two, and to brace all the four ribs-together overhead, so as to obtain additional transverse stiffness.—*London Mining Journal.*

Railway Keys, to Prevent their Shrinking.

The Chronicle says that "Mr. Barlow, C. E., of Derby, has patented his plan for securing the rails from becoming loose in the chairs, by contracting in dry weather, by impregnating the keys with matter insoluble in water, so as nearly to prevent contraction and expansion. The materials which the patentee prefers are—4 gallons of creosote, 1 of naphtha, 24 lbs. of pitch and a gallon of boiled linseed oil, mixed together—one gallon of the mixture to each cubic foot of wood. The wooden keys, after being cut to the desired form, are dried by steam for four hours, which causes them to shrink considerably; they are then taken to the drying stove, and while hot, subjected to the saturating process, either by simple immersion, from 16 to 24 hours, or by exhaustion and injection. He recommends that they should be subjected to pressure, in the usual manner of compressing railway keys."

NEW YORK & PHILADELPHIA.

NEW JERSEY RAILROAD & TRANSPORTATION CO.

6 o'clock, A. M.

Accommodation Line from New York to Philadelphia, via Jersey City, New Brunswick, and Camden.

Fare for 1st class cars, \$3; for 2d class, \$2 50; children under 12 years, half price.

Leaving every morning, (Sundays excepted) at 6 o'clock, from foot of Courtlandt street, and passing through Newark, Elizabethtown, Rahway, New Brunswick, Kingston, Princeton, Trenton, Bordentown, Burlington and Camden, and arriving at Philadelphia at 11 A. M.

Leave New York 6 o'clock A. M.; Newark, 6h. 30m.; Elizabethtown 6h. 40m.; Rahway, 7 A. M.

DAILY EXCURSION TO PHILADELPHIA.

Excursion Tickets will be furnished, entitling the passengers to return by the 4½ o'clock P. M. Mail Line the same day, or next morning by the 6 o'clock A. M. Mail Line, for FIVE DOLLARS.

RAILROAD IRON.

THE MOUNT SAVAGE IRON WORKS, Allegheny County, Maryland, having recently passed into the hands of new proprietors, are now prepared, with increased facilities, to execute orders for any of the various patterns of Railroad Iron.—Communications addressed to either of the subscribers will have prompt attention.

J. F. WINSLOW, President

Mount Savage Iron Co., Troy, N. Y.

ERASTUS CORNING, Albany.

WARREN DELANO, Jr., N. Y.

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November 6, 1848.

JAMES LAURIE, Civil Engineer.

No. 23 RAILROAD EXCHANGE, BOSTON, MASS.

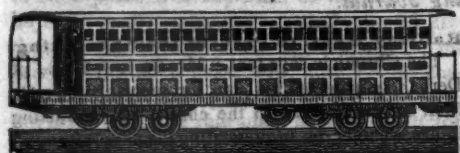
Railroad Routes Explored and Surveyed. Estimates, Plans and Specifications furnished for Dams, Bridges, Wharves, and all Engineering Structures. October 14, 1848.

RAILROAD IRON.

THE NEW JERSEY RAILROAD & TRANSPORTATION CO. have for sale from 450 to 500 tons of Iron Rails, weighing from 35 to 37 lbs. per yard, of the T pattern, recently taken up from their road to give place to a heavier rail, together with Chairs and Spikes to correspond, which they will sell cheap for cash; the rails have been straightened and prepared for re-laying, and are now ready for delivery on the dock at Jersey City. Apply at 57 Merchants Exchange, New York.

August 28, 1848.—31

CAR MANUFACTORY, CINCINNATI, OHIO.



KECK & DAVENPORT would respectfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to different points speedy and economical. They are prepared to execute to order, on short notice, Eight-Wheeled Passenger Cars of the most superior description, Open and Covered Freight Cars, Four or Eight-Wheel Crank and Lever Hand Cars, Trucks, Wheels and Axles, and Railroad Work generally. Cincinnati, Ohio, October 2, 1848.

TO CONTRACTORS.

BURLINGTON AND MOUNT HOLLY RAILROAD.—Sealed proposals will be received by the subscriber until the evening of the 13th of November next, for the Grading, Bridging, and Masonry of the Burlington and Mount Holly Railroad, about seven miles in length.

Plans, profiles, etc., may be seen, and all necessary information obtained of H. L. Southard, at the Engineer's office, in Burlington, after the 10th of November.

The company reserve the right of rejecting all bids deemed incompatible with their interests.

ROBERT S. VAN RENSSLAER.
Burlington, October 30, 1848.

RAILROAD IRON.

THE TRENTON IRON COMPANY ARE now turning out one thousand tons of rails per month, at their works at Trenton, N. J. They are prepared to enter into contract to furnish rails of any pattern, and of the very best quality, made exclusively from the famous Andover iron. The position of the works, on the Delaware river, the Delaware and Raritan canal, and the Camden and Amboy railroad, enables them to ship rails at all seasons of the year. Apply to

COOPER & HEWITT, Agents,
17 Barling Slip, New York.

October 30th, 1848.

DEAN, PACKARD & MILLS,

MANUFACTURERS OF ALL KINDS OF

RAILROAD CARS,

SUCH AS

PASSENGER, FREIGHT AND CRANK CARS,

— ALSO —

SNOW PLOUGHS AND ENGINE TENDERS

OF VARIOUS KINDS.

CAR WHEELS and AXLES fitted and furnished at short notice; also, STEEL SPRINGS of various kinds; and

SHAFTING FOR FACTORIES.

The above may be had at order at our Car Factory, **ROBERT DEAN,**
ELIJAH PACKARD,
ISAAC MILLS,
SPRINGFIELD, MASS.

RAILROAD IRON.

3000 TONS, ABOUT 60 LBS. PR lineal yard—deliverable early in the Spring, and of undoubted quality, can be contracted for at a low rate. For sale by **DAVIS, BROOKS & CO.,** 68 Broad street.

New York, Sept. 16, 1848, 391f
Also on hand—1000 Tons best quality Rails.

FULLER'S PATENT INDIA RUBBER CAR SPRINGS.—These Springs have been in use for nearly four years, with most complete success, and they are now in use upon most of the principal roads in this country. They are made of the best material, are economical, light, and very easy in their motion—all persons using them are guaranteed against adverse claims.

Offices 78 Broad street New York, and Jas. Lee & Co., 18 India wharf, Boston.

Railroad companies are cautioned against the statements made by the New England car company. The India rubber used by the patentee is the best that can be made, and does not conflict with any existing patent. The ridiculous statement that a patentee may not vend his own invention needs no remark.

The patent for these springs was granted to W. C. Fuller, in Oct., 1845, in the United States and in England; A Mr. Ray claims to have invented another spring, which counsel advise, is a mere evasion of Mr. Fuller's patent, and proceedings are being taken to stop that infringement.

"The New England Car Company" have published an article from the pen of Mr. Hale, president of the Boston and Worcester railroad, expressing his opinion concerning these springs—but they have forgotten to publish the whole of that article; it is therefore given in full now, and the portion omitted by the New England car company is printed in italics, that the public may judge of the manner in which this "company" pervert Mr. Hale's meaning.

G. M. KNEVITT, Agent,
78 Broad St., New York.

September 30, 1848.

[From the Boston Advertiser of the 7th June.]

INDIA RUBBER SPRINGS FOR RAILROAD CARS.

"Of the numerous uses to which the wonderful elasticity and durability of India rubber, renders this material applicable, we are hardly aware of one, in which it has been more successful than in forming springs for railroad cars. We have had occasion to observe, for some months past, its application to this use, on one of the passenger cars on the Newton special train of the Boston and Worcester railroad. It is there used not only for the springs on which the car rests, but for the springs attached to the draw bar, at each end of the car, to prevent any jar on the sudden commencement, or interruption of the motion of the car. For both these purposes it appears to be admirably adapted, and we do not learn that during the period in which it has been used, any defect in it has been discovered. It renders the movements of the car extremely easy, and protects it more effectually, we think, than any other spring which we have seen in use, from every harsh or unpleasant motion, either vertical or horizontal. It is also simple in its form and application, extremely light, and little liable to get out of repair. During the period of some months in which we have seen the springs in operation, there is no apparent wear or diminution of its efficiency. Each spring is composed of several circular layers or rings of India rubber, a thin metallic plate of the same size being interposed between each of the layers. From the simplicity of its form, it cannot be expensive, and it admits of being made more or less elastic almost at pleasure. The invention, we understand, was first patented in England, where it has been introduced into general use on several of the principal railroads, and we have no doubt it will come into very extensive use in this country. The patent for this invention, we understand, has been granted to Mr. W. C. Fuller, in England and France, and also in this country. Mr. Knevitt, of New York, is the agent for the patentee in the United States, and he has established a branch office for the supply of the article in this city, as may be learned from an advertisement in another column of this paper."

RAILROAD SCALES.—THE ATTENTION of Railroad Companies is particularly requested to Ellicott's Scales, made for weighing loaded cars in trains, or singly, they have been the inventors, and the first to make platform scales in the United States; supposing that an experience of 20 years has given a knowledge and superior advantage in the business.

The levers of our scales are made of wrought iron, all the bearings and fulcrums are made of the best cast steel, laid on blocks of granite, extending across the pit, the upper part of the scale only being made of wood. E. Ellicott has made the largest Railroad Scale in the world, its extreme length was one hundred and twenty feet, capable of weighing ten loaded cars at a single draft. It was put on the Mine Hill and Schuylkill Haven Railroad.

We are prepared to make scales of any size to weigh from five pounds to two hundred tons.

ELLICOTT & ABBOTT,
Factory, 9th street, near Coates, cor. Melon st.

Office, No. 3 North 5th street,
Philadelphia, Pa.

TO RAILROAD COMPANIES AND MANUFACTURERS OF RAILROAD MACHINERY. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE,
N. E. cor. 12th and Market sts., Philad., Pa.

THE NEWCASTLE MANUFACTURING COMPANY continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

ANDREW C. GRAY,
a45 President of the Newcastle Manuf. Co.

LAP-WELDED WROUGHT IRON TUBES

FOR

TUBULAR BOILERS,

FROM 1 1-2 TO 8 INCHES DIAMETER.

These Tubes are of the same quality and manufacture as those so extensively used in England, Scotland, France and Germany, for Locomotive, Marine and other Steam Engine Boilers.

THOMAS PROSSER,

Patented.

28 Platt street, New York.

ENGINEERS' AND SURVEYERS'

INSTRUMENTS MADE BY

EDMUND DRAPER,

Surviving partner of

STANCLIFFE & DRAPER.



No 23 Pear street, below Walnut,
1y10 near Third, Philadelphia.

DIRECT ACTION ENGINES FOR STEAMBOATS.

THE PATENT DOUBLE CYLINDERS,
AND ALSO
THE ANNULAR RING PISTON ENGINES,
of Messrs. Maudslay, Sons & Field, of London,
may be built in the United States, under license,
which can be obtained of their agent,

THOMAS PROSSER, C. E.,
28 Platt street, New York.

May 6, 1848.

WILLIAM JESSOP & SONS, CELEBRATED CAST-STEEL.

The subscribers have on hand, and are constantly
receiving, from their manufactory,

PARK WORKS, SHEFFIELD.

Double Refined Cast Steel—Square, flat & octagon.
Best warranted Cast Steel—Square, flat & octagon.
Best Double and Single Shear Steel—Warranted.
Machinery Steel—Round.

Best and 2d gy. Sheet Steel—for Saws and other
purposes.

German Steel—flat and sq., "W. I. & S." "Eagle"
and "Goat" Stamps.

Genuine "Sykes," L. Blister Steel.

Best English Blister Steel, etc., etc., etc.

All of which are offered for sale on the most fa-
vorable terms, by WM. JESSOP & SONS,

91 John Street, New York.

Also by their Agents—

Curtis & Hand, 47 Commerce St., Philadelphia.

Alex'r Fullerton, & Co., 119 Milk St., Boston.

Stickney & Beatty, South Charles St., Baltimore.

May 6, 1848.

NEW PATENT CAR WHEELS.

THE SUBSCRIBERS ARE NOW MANU-
facturing Metallic Plate Wheels of their in-
vention, which are pronounced by those that have
used them, a superior article, and the demand for
them has met the most sanguine expectations of the
inventors. Being made of a superior quality of
Charcoal Iron, they are warranted equal to any
manufacture.

We would refer Railroad Companies and others
to the following roads that have them in use. Hart-
ford and New Haven, Connecticut River Railroad,
Housatonic, Harlem, Farmington, and Stonington.

SIZER & CO.
Springfield, Mass.

January 29, 1848. if

RAILROAD IRON AND LOCOMOTIVE

Tyres imported to order and constantly on hand
by A. & G. RALSTON

Mar. 20th

4 South Front St., Philadelphia.

TO MACHINISTS & MANUFACTURERS.

The Subscribers have taken the READING
CAR AXLE MANUFACTORY—and are prepar-
ed to execute orders for Axles of every description, and
Wrought Iron Shafts for Steamboats, Mills, etc.,
made from superior material, at short notice. Ad-
dress Reading, Pa.

ANDREW TAYLOR & CO.

August 5, 1848—3m.

RAILROAD IRON—SHEET IRON— BRASIER'S RODS—HOOPS—SCROLL— BANK'S BEST—& OTHER GOOD MAKES OF ENGLISH IRON.

100 Tons Railroad Iron—Staffordshire make—
56 pounds per yard—shipped from Liverpool 20th
July, expected to land on wharf from 10th to 20th
September.

Also have Invoices of Sheet Iron, Brasier's Rods,
Hoops, Scroll, and Band Iron, Banks best, and other
good makes of English Rolled Iron, to arrive,
suitable for Railroad Axles, etc., etc., equal in qual-
ity to American Rolled Iron. I have agency of sev-
eral best makers in England and Wales, and can
import for Railroad Companies, and others, on best
terms, and at much less prices than they can be sup-
plied from American Mills.

DAVID W. WETMORE,
218 Water street.

New York, Sept. 9, 1848.

MATTEWAN MACHINE WORKS.

THE MATTEWAN COMPANY HAVE
added to their Machine Works, an extensive
Locomotive Engine department, and are prepared
to execute orders for Locomotive Engines of every
size and pattern—also, *Tenders, Wheels, Axles*, and
other Railroad Machinery, to which they ask the at-
tention of those who wish such articles, before they
purchase elsewhere.

STATIONARY ENGINES, BOILERS, ETC.,
Of any required size or pattern, arranged for driv-
ing Cotton, Woollen, or other Mills, can be had on
favorable terms, and at short notice.

COTTON AND WOOLLEN MACHINERY,
Of every description, embodying all the modern im-
provements, second in quality to none in this or any
other country, made to order.

MILL GEARING.

Of every description, may be had at short notice, as
this company has probably the most extensive as-
sortment of patterns in this line, in any section of
the country, and are constantly adding to them.

TOOLS.

Turning Lathes, Slabbing, Planing, Cutting, and
Drilling Machines, of the most approved patterns,
together with all other tools required in machine
shops, may be had at the Mattewan Company's
Shops, Fishkill Landing, or at

39 Pine Street, New York.
WM. B. LEONARD, Agent.

FAIRBANKS' RAILROAD SCALES.

THE Subscribers are prepared to construct at short
notice, Railroad and Depot Scales, of any desired
length and capacity. Their long experience as ma-
nufacturers—their improvements in the construction
of the various modifications, having reference to
strength, durability, retention of adjustment, accu-
racy of weight and despatch in weighing—and the
long and severe tests to which their scales have been
subjected—combine to ensure for these scales the uni-
versal confidence of the public.

No other scales are so extensively used upon Rail-
roads, either in the United States or Great Britain;
and the manufacturers refer with confidence to the
following in the United States.

Eastern Railroad,	Boston and Maine R. R.
Providence Railroad,	Providence & Wor. R.R.
Western Railroad,	Concord R. R.
Old Colony Railroad,	Fitchburg R. R.
Schenectady Railroad,	Syracuse and Utica R. R.
Baltimore & Ohio Road,	Baltimore & Susq. R. R.
Phila. & Reading Road,	Schuylkill Valley R. R.
Central (Ga.) Railroad,	Macon and Western R. R.
New York and Erie Railroad;	

and other principal Railroads in the Western, Mid-
dle and Southern States.

E. & F. FAIRBANKS & CO.

St. Johnsbury, Vt.

Agents: FAIRBANKS & Co., 81 Water st. N. York.

A. B. NORRIS, 196 Market st., Philad.

April 23, 1848. 1y*17

PATENT HAMMERED RAILROAD, SHIP

and Boat Spikes. The Albany Iron and Nail
Works have always on hand, of their own manufac-
ture, a large assortment of Railroad, Ship and Boat
Spikes, from 2 to 12 inches in length, and of any form
of head. From the excellence of the material al-
ways used in their manufacture, and their very gen-
eral use for railroads and other purposes in this coun-
try, the manufacturers have no hesitation in warrant-
ing them fully equal to the best spikes in market,
both as to quality and appearance. All orders ad-
dressed to the subscriber at the works, will be prompt-
ly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y.

The above spikes may be had at factory prices, of
Erastus Corning & Co., Albany; Hart & Merritt,
New York; J. H. Whitney, do.; E. J. Etting, Phila-
delphia; Wm. E. Coffin & Co., Boston. ja45

RAILROAD IRON.

THE NEW JERSEY IRON CO.'S WORKS,
at Boonton, are now in full operation, and can
execute orders for Railroad Bars of any required
pattern, equal in quality to any made in this coun-
try. Apply to DUDLEY B. FULLER, Agt

139 Greenwich Street.

New York, October 25, 1848.

CHILLED RAILROAD WHEELS.—THE
undersigned are now prepared to manufacture
their Improved Corrugated Car Wheels, or Wheels
with any form of Spokes or Disks, by a new process
which prevents all strain on the metal, such as is
produced in all other chilled wheels, by the man-
ner of casting and cooling. By this new method of
manufacture, the hubs of all kinds of wheels may
be made whole—that is, without dividing them into
sections—thus rendering the expense of banding un-
necessary; and the wheels subjected to this process
will be much stronger than those of the same size
and weight, when made in the ordinary way.

A. WHITNEY & SON,

Willow St. below 13th,
Philadelphia, Penna.

Nov. 10, 1847. [if.]



THE SUBSCRIBER has on hand
a good assortment of
his best Leveling and
Surveying Instru-
ments, among them
his improved Com-
pass for taking angles
without the needle—
also Bells, suitable
for Churches, Rail-
road Depots, etc.

ANDREW MENEELY.

West Troy, May 12, 1847.

1y*21

PATENT RAILROAD, SHIP AND BOAT

Spikes. The Troy Iron and Nail Factory keeps
constantly for sale a very extensive assortment of
Wrought Spikes and Nails, from 3 to 10 inches,
manufactured by the subscriber's Patent Machinery,
which after five years' successful operation, and now
almost universal use in the United States (as well
as England, where the subscriber obtained a patent)
are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes
having countersink heads suitable to holes in iron
rails, to any amount and on short notice. Almost
all the railroads now in progress in the United States
are fastened with Spikes made at the above named
factory—for which purpose they are found invalua-
ble, as their adhesion is more than double any com-
mon spikes made by the hammer.

All orders directed to the Agent, Troy, N. York
will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory Prices, by
& J. Townsend, Albany, and the principal iron mer-
chants in Albany and Troy; J. I. Brower, 222 Water
St., New York; A. M. Jones, Philadelphia; T. Jar-
viers, Baltimore; Degrand & Smith, Boston.

Railroad Companies would do well to forward
their orders as early as practicable, as the subscriber
is desirous of extending the manufacturing so as to
keep pace with the daily increasing demand.
ja45

TO LOCOMOTIVE AND MARINE EN-

gine Boiler Builders. Pascal Iron Works,
Philadelphia. Welded Wrought Iron Flues, suit-
able for Locomotives, Marine and other Steam En-
gine Boilers, from 2 to 5 inches in diameter. Also,
Pipes for Gas, Steam and other purposes; extra
strong Tube for Hydraulic Presses; Hollow Pis-
tons for Pumps of Steam Engines, etc. Manufac-
tured and for sale by

MORRIS TASKER & MORRIS,

Warehouse S. E. corner 3d and Walnut Sts., Phila-
delphia. 10

CHILLED RAILROAD WHEELS.—THE

undersigned, the Original Inventor of the Plate
Wheel with solid hub, is prepared to execute all or-
ders for the same, promptly and faithfully, and sol-
icits a share of the patronage for those kind of wheels
which are now so much preferred, and which he ori-
ginally produced after a large expenditure of time
and money.

A. TIERS.

Point Pleasant Foundry.

He also offers to furnish Rolling Mill Castings,
and other Mill Gearing, with promptness, having,
he believes, the largest stock of such patterns to be
found in the country.

A. T.

Kensington, Philadelphia Co.,

March 12, 1848.

NORWICH CAR FACTORY, NORWICH, CONNECTICUT.

At the head of navigation on the River Thames and on the line of the *Norwich and Worcester Railroad*, established for the manufacture of **RAILROAD CARS,**

OF EVERY DESCRIPTION, VIZ:
PASSENGER, FREIGHT AND HAND CARS,

ALSO, VARIOUS KINDS OF
ENGINE TENDERS AND SNOW PLOUGHS
TRUCKS, WHEELS & AXLES

Furnished and fitted at short notice.

Orders executed with promptness and despatch.

Any communication addressed to

JAMES D. MOWRY,

General Agent,

Norwich, Conn.,

Will meet with immediate attention. 1y

MANUFACTURE OF PATENT WIRE

Rope and Cables for Inclined Planes, Standing Ship Rigging, Mines, Cranes, Tillers etc., by
JOHN A. ROEBLING, Civil Engineer,

Pittsburgh, Pa.

These Ropes are in successful operation on the planes of the Portage Railroad in Pennsylvania, on the Public Slips, on Ferries and in Mines. The first rope put upon Plane No. 3, Portage Railroad, has now run 4 seasons, and is still in good condition. 92v11y

NICOLL'S PATENT SAFETY SWITCH for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

G. A. NICOLLS,

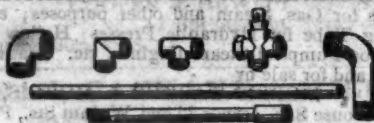
Reading, Pa.

TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

PASCAL IRON WORKS.

WELDED WROUGHT IRON TUBES

From 4 inches to 4 feet in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by

MORRIS, TASKER & MORRIS.

Warehouse S. E. Corner of Third & Walnut Streets,
PHILADELPHIA.

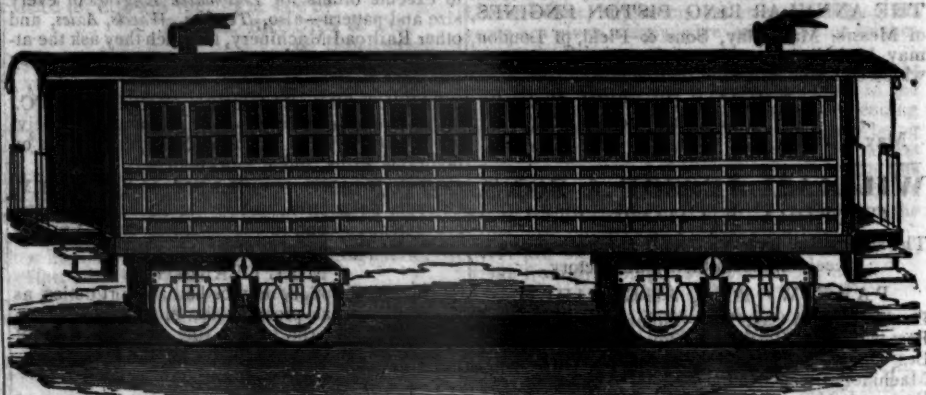
LAWRENCE'S ROSENDALE HYDRAULIC CEMENT. This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floors and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by **JOHN W. LAWRENCE,**

142 Front street, New York.

Orders for the above will be received and promptly attended to at this office. 321y

DAVENPORT & BRIDGES' CAR WORKS, CAMBRIDGEPORT, MASS.



Manufacture to Order, Passenger and Freight Cars of every description, and of the most improved pattern; also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices.

All orders punctually executed and forwarded to any part of the country.

Our Works are within fifteen minutes ride from State street, Boston—Omnibuses pass every fifteen minutes. 106f

THE SUBSCRIBERS ARE PREPARED TO execute orders at their Phoenix Works for Railroad Iron of any required pattern, equal in quality and finish to the best imported.

REEVES, BUCK & CO.,

Philadelphia.

ROBERT NICHOLS, Agent,

No. 79 Water St., New York. 26tf

RAILROAD IRON, PIG IRON, ETC.

600 Tons of T Rail 60 lbs. per yard.

25 Tons of 2 1/2 by 1/2 Flat Bars.

25 Tons of 2 1/2 by 9-16 Flat Bars.

100 Tons No. 1 Gartshore.

100 Tons Welsh Forge Pigs.

For Sale by **A. & G. RALSTON & CO.**

No. 4 So. Front St., Philadelphia

FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved Spark Arrester recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year, on both passenger & freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

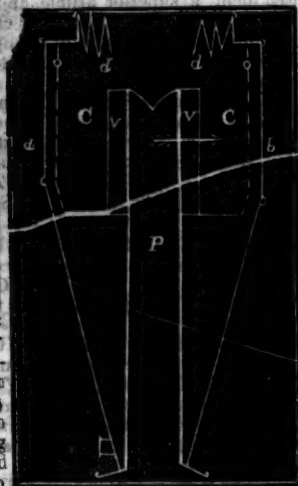
These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits.

R. L. Stevens, President Camden and Amboy Railroad Company; **Richard Peters,** Superintendent Georgia Railroad, Augusta, Ga.; **G. A. Nicolls,** Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; **W. E. Morris,** President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; **E. B. Dudley,** President W. and R. Railroad Company, Wilmington, N. C.; **Col. James Gadsden,** President S. C. and C. Railroad Company, Charleston, S. C.; **W. C. Walker,** Agent Vicksburg and Jackson Railroad, Vicksburg, Miss.; **R. S. Van Rensselaer,** Engineer and Sup't Hartford and New Haven Railroad; **W. R. McKee,** Sup't Lexington and Ohio Railroad, Lexington, Ky.; **T. L. Smith,** Sup't New Jersey Railroad Trans. Co.; **J. Elliott,** Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; **J. O. Sterns,** Sup't Elizabethtown and Somerville Railroad; **R. R. Cuyler,** President Central Railroad Company, Savannah, Ga.; **J. D. Gray,** Sup't Macon Railroad, Macon, Ga.; **J. H. Cleveland,** Sup't Southern Railroad, Monroe, Mich.; **M. F. Chittenden,** Sup't M. P. Central Railroad, Detroit, Mich.; **G. B. Fisk,** President Long Island Railroad, Brooklyn.

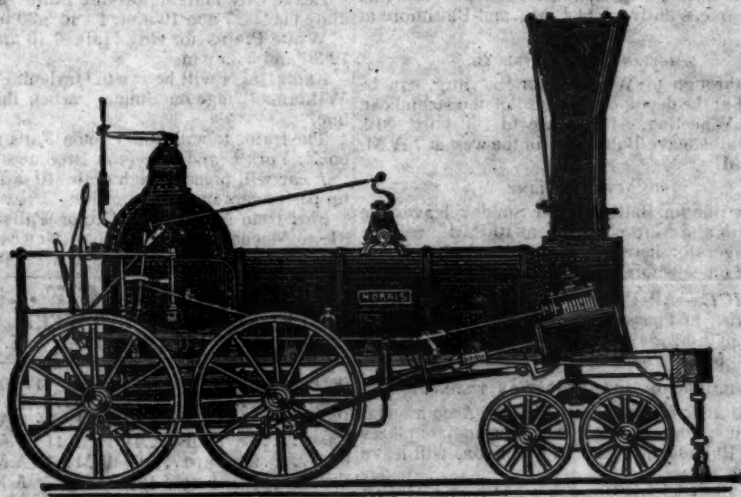
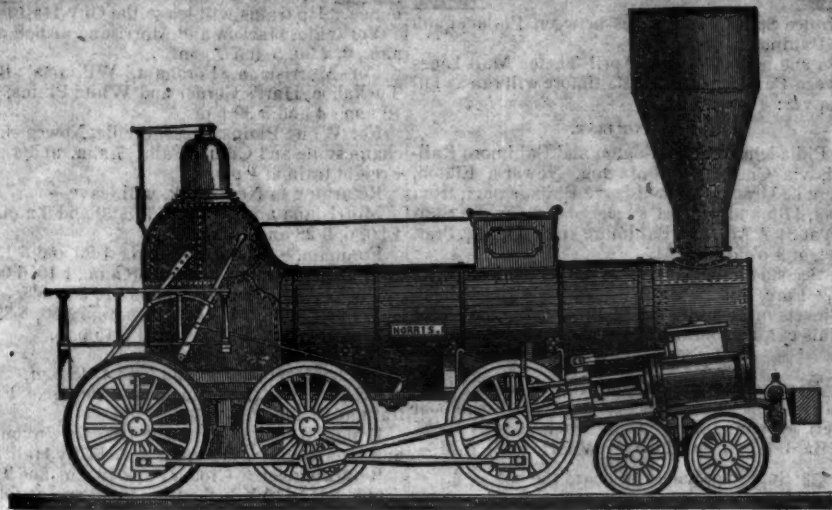
Orders for these Chimneys and Arresters, addressed to the subscribers, care Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

Philadelphia, Pa., April 6, 1844. 321y



NORRIS' LOCOMOTIVE WORKS. BUSHHILL, SCHUYLKILLE SIXTH-ST., PHILADELPHIA.



THE UNDERSIGNED Manufacture to order Locomotive Steam Engines of any plan or size. Their shops being enlarged, and their arrangements considerably extended to facilitate the speedy execution of work in this branch, they can offer to Railway Companies unusual advantages for prompt delivery of Machinery of superior workmanship and finish. Connected with the Locomotive business, they are also prepared to furnish, at short notice, Chilled Wheels for Cars of superior quality. Iron and Brass castings, Axles, etc., fitted up complete with Trucks or otherwise.

NORRIS' BROTHERS.

MACHINE WORKS OF ROGERS, Ketchum & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,
Patterson, N. J., or 60 Wall street, N. York.

PIG AND BLOOM IRON.—THE SUBSCRIBERS are agents for the sale of numerous brands of Charcoal and Anthracite Pig Iron, suitable for Machinery, Railroad Wheels, Chains, Hollowware, etc. Also several brands of the best Puddling Iron, Juniatta Blooms suitable for Wire, Boiler Plate, Axe Iron, Shovels, etc. The attention of those engaged in the manufacture of Iron is solicited by

A. WRIGHT & NEPHEW,
Vine St. Wharf, Philadelphia.

T. & C. WASON, Manufacturers of every style of Freight and Baggage Cars.—Forty rods east of the depot, Springfield, Mass.

Running parts in sets complete, Wheels, Axles, or any part of cars furnished and fitted up at short notice and in the best manner.

N.B. Particular attention paid to the manufacture of the most improved Freight Cars. We refer to the New Haven, Hartford and Springfield; Connecticut River; Harlem; Housatonic, and Western, Mass., Railroads, where our cars are now in constant use.

Dec. 25, 1847.—1y.

SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address.

JOAN F. WINSLOW, Agent,
Albany Iron and Nail Works,

IMPORTANT TO ENGINEERS, CONTRACTORS, and Surveyors.—The Engineer's, Contractor's and Surveyor's Pocket Table Book, by J. M. Scribner, A. M., 264 pages, 24 mo; tuck binding, with gilt edge. Published by Huntington & Savage, 216 Pearl street, New York.

The above work comprises Logarithms of Numbers, Logarithmic Sines and Tangents, Natural Sines and Natural Tangents; the Traverse Table, and a full and extensive set of tables, exhibiting at one view the number of cubic yards contained in any embankment or cutting, and for any base or slope of sides usual in practice. Besides these essential tables, the work comprises 50 pages more of Mensuration, Tables, Weights of Iron, Strength of Materials, Formulas, Diagrams, etc., for laying out railroads, canals and curves; much of which has never before been offered to the public, and all dispensable to the engineer. This book will prove a great saving of time, and will enable the new beginner to furnish results as accurately (and with much greater rapidity) as the most experienced in the profession without its aid. The tables of Logarithms, etc., have been carefully corrected and compared with different editions of the same tables; and all the tables throughout the book have been read carefully by proofs four times; hence the most implicit confidence may be placed in their correctness.

Also, *Scribner's Engineer's and Mechanic's Companion*, new edition, 264 pages, enlarged, with 35 pages of entirely new matter, and much improved throughout.

It is believed these books are so well adapted to suit the above professions, that they cannot afford to do without them, and that they will aid in rewarding well directed mental labor.

Both are for sale by all the principal booksellers throughout the United States and Canada.

WESTERN RAILROAD.—ON AND AFTER Monday, April 5, 1847, the passenger

trains will leave daily, Sunday excepted, as follows:

Boston at 8 a. m. and 4 p. m. for Albany.
Albany at 7 1/4 a. m. and 5 p. m. for Boston.
Springfield at 8 1/2 a. m. and 1 p. m. for Albany.
Springfield at 8 1/2 a. m. and 1 1/2 and 3 p. m. (or on arrival of the train from New York) for Boston.
Day line to New York, via Springfield.—The steamboat train leaves Boston at 6 a. m., and arrives in New York at 7 p. m., by the steamboats Traveler, New York, or Champion. Returning, leaves New York at 6 1/4 a. m., and arrives in Boston at 7 p. m.

Night line to New York.—Leaves Boston at m., and arrives in New York at 5 a. m.

Albany and Troy.—Leave Boston at 8 a. m., Springfield at 1 p. m., and arrive in Albany at 6 p. m.; or, leave Boston at 4 p. m., Springfield next morning at 8 1/2, and arrive in Albany at 1 1/2 p. m. The Troy trains connect at Greenbush.

The trains for Buffalo leave at 7 1/2 a. m. and 7 p. m. For Northampton, Greenfield, etc.—The trains of the Connecticut River Railroad leave Springfield at 8 1/4 a. m., 1 and 3 p. m., and passengers proceed directly on to Braintree, Windsor, Bellows Falls, Walpole, Hanover, Haverhill, etc.

For Hartford.—The trains leave Springfield on the arrival of the trains from Boston.

The trains of Pittsfield and North Adams Railroad leave Pittsfield on the arrival of the trains from Boston.

N.B.—No responsibility assumed for any baggage by the passenger trains, except for wearing apparel not exceeding the value of fifty dollars, unless by special agreement.

JAMES BARNES, Supt and Eng'r,
C. A. SEAD, Agent, 27 State street, Boston.

GEORGIA RAILROAD. FROM AUGUSTA to ATLANTA—171 MILES.

AND WESTERN AND ATLANTIC RAILROAD FROM ATLANTA to DALTON, 100 MILES.

This Road in connection with the South Carolina Railroad and Western and Atlantic Railroad now forms a continuous line, 408 miles in length, from Charleston to Dalton (Cross Plains) in Murray county, Ga.—33 miles from Chattanooga, Tenn.

RATES OF FREIGHT.

		Between Augusta and Dalton, 271 miles.	Between Charleston and Dalton, 408 miles.
1st class.	Boxes of Hats, Bonnets, and Furniture, per cubic foot.....	\$0.18	\$0.28
2d class.	Boxes and Bales of Dry Goods, Sadlery, Glass, Paints, Drugs and Confectionary, per 100 lbs.	1.00	1.50
3d class.	Sugar, Coffee, Liquor, Bagging, Rope, Cotton Yarns, Tobacco, Leather, Hides, Copper, Tin, Feathers, Sheet Iron, Hollow Ware, Castings, Crockery, etc.	0.60	0.85
4th class.	Flour, Rice, Bacon, Pork, Beef, Fish, Lard, Tallow, Beeswax, Bar Iron, Ginseng, Mill Gearing, Pig Iron, and Grindstones, etc.....	0.40	0.65
	Cotton, per 100 lbs.....	0.45	0.70
	Molasses, per hogshead, 8 50	13 50	4 25
	" " barrel.....	2 50	4 25
	Salt per bushel.....	0.18	
	Salt per Liverpool sack.....	0.65	
	Ploughs, Corn Shellers, Cultivators, Straw Cutters, Wheelbarrows... 0 75	1 50	

German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight payable at Dalton.

F. O. ARMS,

Sup't. of Transportation.

Augusta, Ga., July 15, 1847.

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THE WESTERN AND ATLANTIC Railroad.

This Road is now in operation to Oothcaloga, a distance of 80 miles, and connects daily (Sundays excepted) with the Georgia Railroad.

From Kingston, on this road, there is a tri-weekly line of stages, which leave on the arrival of the cars on Tuesday, Thursday and Saturday, for Warrenton, Huntsville, Decatur and Tusculumbia, Alabama, and Memphis, Tennessee.

On the same days, the stages leave Oothcaloga for Chattanooga, Jasper, Murfreesborough, Knoxville and Nashville, Tennessee.

This is the most expeditious route from the east to any of these places.

CHAS. F. M. GARNETT,

Chief Engineer.

Atlanta, Georgia, April 16th, 1846

1v1

CENTRAL RAILROAD-FROM SAVANNAH to Macon. Distance 190 miles.

This Road is open for the transportation of Passengers and Freight.

Rates of Passage, \$8 00. Freight—

On weight goods generally... 50 cts. per hundred.

On measurement goods... 13 cts. per cubic ft.

On brls. wet (except molasses and oil).....\$1 50 per barrel.

On brls. dry (except lime)..... 80 cts. per barrel.

On iron in pigs or bars, castings for mills, and unboxed machinery..... 40 cts. per hundred.

On hhds. and pipes of liquor, not over 120 gallons.....\$5 00 per hhd.

On molasses and oil.....\$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission.

THOMAS PURSE,

Gen'l. Sup't. Transportation.

July 10

PHILADELPHIA, WILMINGTON & BALTIMORE RAILROAD.—1848.

SUMMER ARRANGEMENT.

United States Mail Lines between Philadelphia and Baltimore. Fare, \$3.

On and after Monday, April 3d, the Mail Lines between Philadelphia and Baltimore will run as follows, viz:

MORNING LINE.

Per Philadelphia, Wilmington and Baltimore Railroad, via Chester, Wilmington, Newark, Elton, Havre de Grace, etc., will leave Philadelphia, from Depot, 11th and Market streets, daily (except Sunday) at 8 A.M., and Baltimore from Depot, Pratt street, at 9 o'clock, A.M.

A Second Class Car will be run with the morning line. Fare, \$2.

Tickets must positively be procured at the Office for this car, as none will be sold by the conductors.

AFTERNOON LINE.

Via Newcastle and Frenchtown, will leave Philadelphia, from Dock Street Wharf, per Steamboat Robert Morris, daily (except Sunday) at 2 P.M., and Baltimore, from Bowly's Wharf, at 2 P.M.

Supper provided on board the boat.

NIGHT LINE.

Per Philadelphia, Wilmington and Baltimore Railroad, will leave Philadelphia, from depot, 11th and Market streets, daily, at 11 P.M., and Baltimore at 8 P.M.

WHEELING AND PITTSBURG.

Tickets through to Wheeling or Pittsburg, can be procured at the depot, or on board of the steamboat. Fare to Wheeling, \$13. Fare to Pittsburg, \$12.

The trains leave Baltimore for the west at 7 A.M. and 4 P.M.

SUNDAY MAIL LINE.

The only line for Baltimore on Sunday leaves the depot, 11th and Market streets, at 10 P.M.

Passengers for these lines must procure their Tickets at the office before taking their seats in the cars.

NOTICE.—All Baggage by these lines is at its owner's risk, and passengers are expressly prohibited taking anything as baggage, except their wearing apparel. 50 lbs. baggage allowed each passenger.

WILMINGTON ACCOMMODATION TRAINS.

On and after Monday, April 3d, the Accommodation Trains, stopping at all the intermediate places between Philadelphia and Wilmington, will leave as follows, viz:

Leave Philadelphia, from depot 11th and Market streets, daily (Sundays excepted) at 1 P.M. and 4 P.M.

Leave Wilmington, from the depot, Water street, daily (except Sunday) at 7 A.M. and 4 P.M.

The Freight Accommodation Train will leave Philadelphia at 7 P.M. and Wilmington at 7 P.M.

The Mail Trains stopping at Chester and Wilmington, leave Philadelphia at 8 A.M. and 10 P.M.

Wilmington at 1 o'clock, P.M., and 12 midnight.

Fare to Wilmington, 50 cts. Fare to Chester, 25 cts.

G. H. HUDDALL, Agent.

March 23, 1848.

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BOSTON AND PROVIDENCE RAILROAD.

On and after Monday, October 2d, the

Trains will run as follows:

Steamboat Train—Leaves Boston at 5 p.m.—Leaves Providence, on the arrival of the train from Stonington.

Accommodation Trains—Leave Boston at 8 a.m. and 3 p.m. Leave Providence at 8 a.m. and 3 p.m.

Dedham Trains—Leave Boston at 9 a.m., 12 m., 3, 6, and 10 p.m. Leave Dedham at 7 1/2, 10 1/2, 11 1/2, and 9 p.m.

Stoughton Trains—Leave Boston at 11 a.m. and 4 p.m. Leave Stoughton at 8 a.m. and 2 p.m.

Freight Trains—Leave Boston at 11 a.m. and 6 p.m. Leave Providence at 4 a.m. and 7 40 a.m.

On and after Wednesday, Nov. 1, the DEDHAM TRAIN will run as follows: Leave Boston at 9 a.m., 12 m., 3, 5, and 10 p.m. Leave Dedham at 8 1/2, a.m., 11, 4, and 9 p.m.

WM. RAYMOND LEE, Sup't.

NEW YORK & HARLEM RAILROAD CO.—Summer Arrangement.—On and after

Tuesday, June 1st, 1847, the cars

will run as follows, until further notice. Up trains will leave the City Hall for—

Yorkville, Harlem and Morrisana at 6, 8 and 41 a.m., 2, 2 30, 5 and 7 p.m.

For Morrisiana, Fordham, Williams' Bridge, Tuckahoe, Hart's Corner and White Plains, 7 and 10 a.m., 4 and 5 30 p.m.

For White Plains, Pleasantville, Newcastle, Mechanicsville and Croton Falls, 7 a.m. and 4 p.m. Freight train at 1 p.m.

Returning to New York, will leave—Morrisiana and Harlem, 7, 8 20 and 9 a.m., 1, 3, 4 30, 6, 6 28 and 8 p.m.

Fordham, 8 08 and 9 15 a.m., 1 20 and 6 15 p.m. Williams Bridge, 8 and 9 08 a.m., 1 10, 6 08 p.m. Tuckahoe, 7 38 and 8 25 a.m., 12 55 and 5 52 p.m.

White Plains, 7 10 and 8 35 a.m., 12 50, 5 35 p.m. Pleasantville, 8 15 a.m. and 5 15 p.m. Newcastle, 8 a.m. and 5 p.m.

Mechanicsville, 7 48 a.m. and 4 48 p.m. Croton Falls, 7 30 a.m. and 4 30 p.m. Freight train at 10 a.m.

Freight train will leave 32d street for Croton Falls and intermediate places, 4 a.m. and City Hall 1 p.m. Returning, leave Croton Falls 10 a.m. and 9 1/2 p.m.

ON SUNDAYS, the trains will run as follows: Leave City Hall for Croton Falls, 7 a.m., 4 p.m. Croton Falls for City Hall, 7 30 a.m., 4 30 p.m. Leave City Hall for White Plains and intermediate places, 7 and 10 a.m. 4 and 5 30 p.m.

White Plains for City Hall, 7 10 and 8 35 a.m., 12 30 and 5 35 p.m.

Extra trains will be run to Harlem, Fordham and Williams Bridge on Sunday, when the weather is fine.

The trains to and from Croton Falls will not stop on N. York Island, except at Broome st. and 32d st. A car will precede each train 10 minutes to take up passengers in the city.

Fare from New York to Croton Falls and Somers \$1, to Mechanicsville 87c., to Newcastle 75c., to Pleasantville 62c. to White Plains 50c.

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NOTICE.

RAILROAD LINE BETWEEN ALBANY AND BUFFALO, N. Y.

1848.—SCHEDULE FOR RUNNING.—1848.

Going west. 1st train. 2d train. 3d train.

Leaves Albany... 7 A.M. 2 P.M. 7 P.M.

Pass... Utica... 1 P.M. 7 P.M. 1 P.M.

Pass... Syracuse... 4 P.M. 11 P.M. 5 A.M.

Pass... Auburn... 6 P.M. 1 A.M. 7 A.M.

Pass... Rochester... 12 M.N. 7 A.M. 1 P.M.

Arrives at Buffalo... 5 A.M. 12 M.... 6 P.M.

Going east. 1st train. 2d train. 3d train.

Leaves Buffalo... 7 A.M. 3 P.M. 7 P.M.

Pass... Rochester... 12 M.... 7 P.M. 12 M.N.

Pass... Auburn... 6 P.M. 1 A.M. 6 A.M.

Pass... Syracuse... 8 P.M. 3 A.M. 8 A.M.

Pass... Utica... 12 M.N. 7 A.M. 11 A.M.

Arrives at Albany... 5 A.M. 12 M.... 4 P.M.

Adopted February 18, 1848, in convention at Albany.

(Copy.) T. Y. Howe, Jr.,

Secretary of the Convention.

BOSTON AND MAINE RAILROAD.

Winter Arrangement.

Commencing Nov. 13, 1848.

Trains leave Boston as follows, viz: For

Portland at 7 A.M. and 2 P.M.

Great Falls at 7 a.m., 2, and 3 p.m.

Haverhill at 7 and 11 a.m., 2, 3, and 5 p.m.

Lawrence, at 7, 9, 11 a.m., 2, 3, 5, 6 p.m.

Reading 7, 9 & 11 a.m., 2, 3, 5, 6, 7 & 10 p.m.

Trains leave for Boston as follows, viz: From

Portland at 7 a.m., and 3 p.m.

Great Falls at 6 and 9 a.m., and 4 p.m.

Haverhill at 7, 8, and 11 a.m., 3 and 6 p.m.

Lawrence at 6, 7, 8, 11 a.m., 12, 3, 6, p.m.

Reading at 6, 7, 8, 11 a.m., 1, 3, 5, 6, 9 p.m.

MEDFORD BRANCH TRAINS.

From Medford at 6, 8, 10, a.m., 2, 4, 6, 9 p.m.

From Boston at 7, 9 a.m., 12, 2, 5, 6, 10 p.m.

The Depot in Boston is on Haymarket Square.

CHAS. MINOT, Sup't.

Boston, Nov. 7, 1848.

BALTIMORE AND SUSQUEHANNA

Railroad.—Reduction of Fare. Morning and Afternoon Trains between Baltimore and York.—The Passenger

trains run daily, except Sunday, as follows:
Leaves Baltimore at.....9 a.m. and 3½ p.m.
Arrives at.....9 a.m. and 6½ p.m.
Leaves York at.....5 a.m. and 3 p.m.
Arrives at.....12½ p.m. and 8 p.m.
Leaves York for Columbia at.....1½ p.m. and 8 a.m.
Leaves Columbia for York at.....8 a.m. and 2 p.m.

Fare to York.....\$1 50
"Wrightsville.....2 00
"Columbia.....2 12½
Way points in proportion.

PITTSBURG, GETTYSBURG AND HARRISBURG.

Through tickets to Pittsburg via stage to Harrisburg.....\$9
Or via Lancaster by railroad.....10
Through tickets to Harrisburg or Gettysburg.....3
In connection with the afternoon train at 3½ o'clock, a horse car is run to Green Spring and Owing's Mill, arriving at the Mills at.....5½ p.m.
Returning, leaves Owing's Mills at.....7 a.m.
D. C. H. BORDLEY, Sup't.
Ticket Office, 63 North st.
31 ly

BALTIMORE AND OHIO RAILROAD.

MAIN STEM. The Train carrying the Great Western Mail leaves Baltimore every morning at 7½ and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburg. Time of arrival at both Cumberland and Baltimore 5½ P. M. Fare between those points \$7, and 4 cents per mile for less distances. Fare through to Wheeling \$11 and time about 36 hours, to Pittsburg \$10, and time about 32 hours. Through tickets from Philadelphia to Wheeling \$13, to Pittsburg \$12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5½ P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare \$1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13yl

NORWICH AND WORCESTER RAILROAD.

Winter Arrangement.—1848.
Accommodation Trains daily, (Sundays excepted.)
Leave Norwich, at 6 a. m., 12 m. and 2½ p. m.
Leave Worcester, at 6½ and 10 a. m., and 4½ p. m. connecting with the trains of the Boston and Worcester and Providence and Worcester railroads.

New York & Boston Line. Railroad & Steamers. Leave New York and Boston, daily, Sundays excepted, at 5 p.m.—At New York from pier No. 1 N. River.—At Boston from corner Lincoln and Beach streets, opposite United States Hotel. The steamboat train stops only at Framingham, Worcester, Danielsonville and Norwich.

Freight Trains leave Norwich and Worcester daily, Sundays excepted.—From Worcester at 6½ a. m., from Norwich at 7 a.m.

Fares are Less when paid for Tickets than when paid in the Cars.
32 ly S. H. P. LEE, Jr., Sup't.

RAILROAD IRON—2500 TONS HEAVY

Rail, now landing, and expected shortly to arrive, for sale on most favorable terms by
DAVIS BROOKS & CO.
July 19th, 1848 68 Broad street, New York.

SOUTH CAROLINA RAILROAD.—A

Passenger Train runs daily from Charleston, on the arrival of the boats from Wilmington, N. C., in connection

with trains on the Georgia, and Western and Atlantic Railroads—and by stage lines and steamers connects with the Montgomery and West Point, and the Tuscumbia Railroad in N. Alabama.

Fare through from Charleston to Montgomery daily.....\$26 50
Fare through from Charleston to Huntsville, Decatur and Tuscumbia.....22 00
The South Carolina Railroad Co. engage to receive merchandise consigned to their order, and to forward the same to any point on their road; and to the different stations on the Georgia and Western and Atlantic railroad; and to Montgomery, Ala., by the West Point and Montgomery Railroad.
JOHN KING, Jr., Agent.

CENTRAL AND MACON AND WESTERN

Railroads, Ga.—These Roads with the Western and Atlantic Railroad of the State of Georgia, form a continuous line from Savannah to Oothcaloga, Ga., of 371 miles, viz:

Savannah to Macon—Central Railroad.....190
Macon to Atlanta—Macon and Western.....101
Atlanta to Oothcaloga—Western and Atlantic.....80
Goods will be carried from Savannah to Atlanta and Oothcaloga, at the following rates, viz:

	To Atlanta.	To Oothcaloga.
On Weight Goods—Sugar, Coffee, Liquor, Bagging, Rope, Butter, Cheese, Tobacco, Leather, Hides, Cotton Yarns, Copper, Tin, Bar & Sheet Iron, Hollow Ware & Castings.....	\$0 50	\$0 75
Flour, Rice, Bacon in Casks or boxes, Pork, Beef, Fish, Lard, Tallow, Beeswax, Mill Gearing, Pig Iron and Grind Stones.....	0 50	0 62½
On Measurement Goods—Boxes of Hats, Bonnets and Furniture, per cubic foot.....	0 20	0 26
Boxes and Bales of Dry Goods, Saddlery, Glass, Paints, Drugs and Confectionary, per cubic foot.....	0 20 pr. 100lbs.	35
Crockery, per cubic foot.....	0 15	35
Molasses and Oil, per hhd., (smaller casks in proportion). 9 00		12 50
Ploughs, (large,) Cultivators, Corn Shellers, and Straw Cutters, each.....	1 25	1 50
Ploughs, (small,) and Wheelbarrows.....	0 80	1 05
Salt, per Liverpool Sack.....	0 70	0 95
Passage—Savannah to Atlanta, \$10; Children, under 12 years of age, half price, Savannah to Macon, \$7.		

Goods consigned to the subscriber will be forwarded free of Commissions.

Freight may be paid at Savannah, Atlanta or Oothcaloga.

F. WINTER, Forwarding Agent, C. R. R.
Savannah, Aug. 15th, 1848. 1v34

PHILADELPHIA AND READING RAILROAD.

Passenger Train Arrangement for 1848.

A Passenger Train will leave Philadelphia and Pottsville daily, except Sundays, at 9 o'clock A. M.

The Train from Philadelphia arrives at Reading at 12 18 M.

The Train from Pottsville arrives at Reading at 10 43 A. M.

Fares. Miles. No. 1. No. 2.

Between Phila. and Pottsville, 92 \$3.50 and \$3.00

" " Reading, 58 2.25 and 1.90

" " Pottsville, 34 1.40 and 1.20

Five minutes allowed at Reading; and three at other way stations.

Passenger Depot in Philadelphia corner of Broad and Vine streets.

NEW YORK ANDERIE RAILROAD LINE.

SUMMER ARRANGEMENT. For passengers, twice each way daily, (except Sunday,) leave New York from the foot of Duane St. at 7 o'clock, A. M. and at 4 o'clock, P. M. by steamboat, for Piermont, thence by cars to Ramapo, Monroe, Chester, Goshen, Middletown, Otisville, and the intermediate stations.

The return trains for New York will leave Otisville at 6 30, A. M. and 4 15, P. M.; Middletown at 7 A. M. and 4 40, P. M.; Goshen at 7 22, A. M. and 5 3, P. M.; Chester at 7 35, A. M. and 5 18, P. M. Fare between New York and Otisville, \$1 50; way-fare in proportion.

For Milk—Leave Otisville at 5½ o'clock, morning and evening.

For Freight—The barges "Samuel Marsh and "Henry Suydam, Jr." will leave New York (from the foot of Duane St.) at 5 o'clock, P. M. daily (except Sundays.)

No freight will be received in New York after 5 o'clock, P. M.

Freight for New York will be taken by the trains leaving Otisville at 10½ o'clock, A. M.; Middletown at 11½, A. M.; Goshen at 12½, P. M.; Chester at 1 o'clock, P. M., etc., etc.

For farther particulars, apply to J. F. CLARKSON, Agent, corner of Duane and West Sts., New York, or to S. S. POST, Superintendent Transportation, Piermont.

H. C. SEYMOUR, Sup't.

LITTLE MIAMI RAILROAD COMPANY.

Fall and Winter Arrangement, 1847. On and after Monday, September 20th,

until further notice, a Passenger train will run as follows:

Leave Cincinnati daily at 9 A. M., for Millford, Foster's Crossing, Deerfield, Morrow, Fort Ancient, Freeport, Waynesville, Spring Valley, Xenia, Yellow Springs, and Springfield. Returning, will leave Springfield at 4½ a.m. Upward train arrives at Cincinnati at 10½ a.m.

Freight trains will run each way daily.

Messrs. Neil, Moore & Co. are running the following stage lines in connection with the road:

A daily line from Xenia to Columbus and Wheeling, carrying the great Eastern mail.

Daily lines from Springfield to Columbus, Zanesville and Wheeling. Also to Urbana and Bellefontaine.

A line of Hacks runs daily in connection with the train between Deerfield and Lebanon.

Passengers leaving for New York and Boston, arrive at Sandusky city via Urbana, Bellefontaine & the Mad River and Lake Erie railroad, in 27 hours, including several hours' sleep at Bellefontaine. To the same point via Columbus, Delaware, Mansfield and the Mansfield and Sandusky city railroad, in 32 hours. Distance from Cincinnati to Springfield by railroad.....84 miles.

From Springfield to Bellefontaine by stage, over a good Summer road.....133 "

From Bellefontaine to Sandusky city by railroad.....102 "

Fare—From Cincinnati to Lebanon.....\$1 00

" " " " Xenia.....1 50

" " " " Springfield.....2 00

" " " " Columbus.....4 00

" " " " Sandusky city 7 00

The Passenger trains runs in connection with Strader & Gorman's line of Mail Packets to Louisville.

Tickets can be procured at the Broadway Hotel, Dennison House, or at the Depot of the Company, on East Front street.

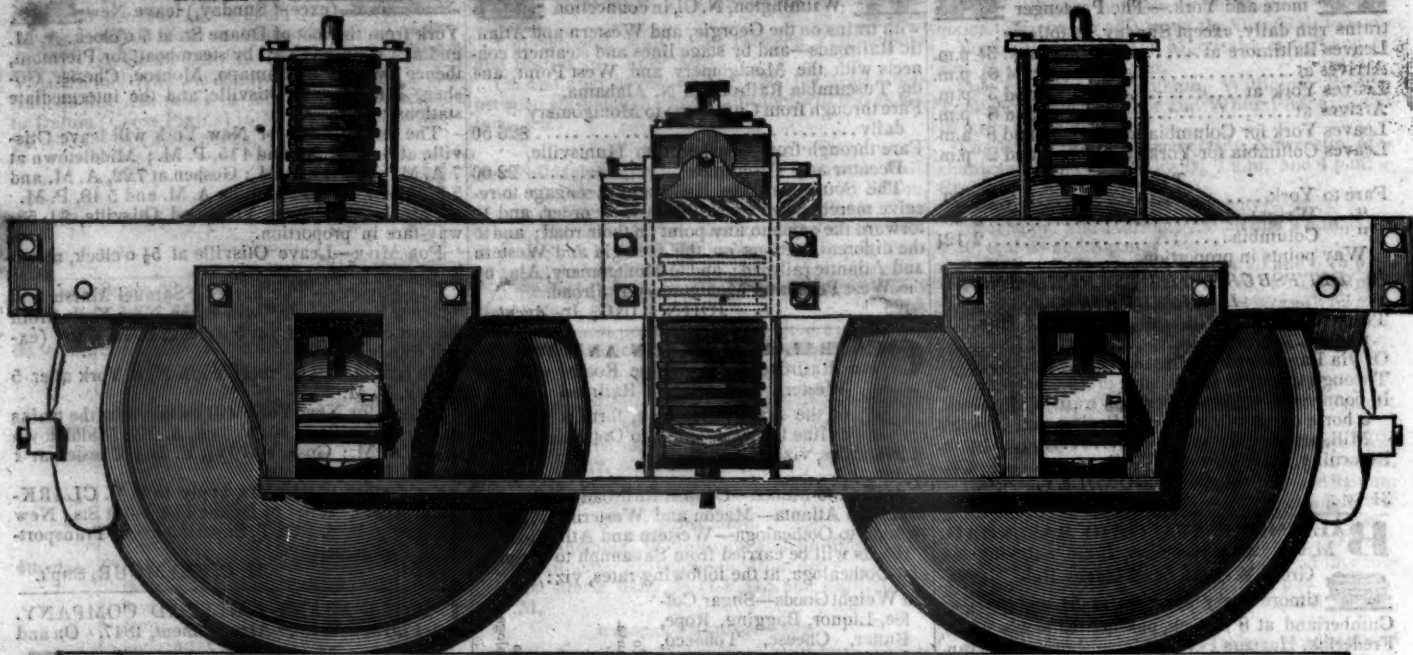
Further information and through tickets for the Stage lines, may be procured at P. Campbell, Agent on Front street, near Broadway.

The company will not be responsible for baggage beyond 50 dollars in value, unless the same is returned to the conductor or agent, and freight paid at of a passage for every \$500 in value over that amount.

W. H. CLEMENT, Sup't.

FOWLER M. RAY'S

METALLIC INDIA RUBBER CAR SPRINGS.



THE NEW ENGLAND CAR COMPANY have introduced these Springs, and they are now in operation on every Railroad terminating in Boston, and several others in New England and the Middle States. Their qualities are well understood, or may be readily ascertained by every person interested to know them. They require no recommendation from the Company. The only known compound of India Rubber good for anything for this purpose is the Vulcanized India Rubber, invented by Charles Goodyear, of New Haven, and the application of it, and the form in which it is used, were invented by F. M. Ray, of New York. The right to manufacture and sell the substance itself for the purpose of Railroad Carriage Springs, as well as the form and application of it, are held exclusively by the New England Car Company. No other company, or individual, has any right to sell or use it for such purpose, or has attempted so to use it in this country.

The New England Car Company guarantee the right to use the article they sell for Railroad Carriage Springs only, against all adverse rights, whether under patents or otherwise: and all persons and corporations are cautioned against a similar use of the article, when purchased of any other parties.

The Springs they sell are all manufactured in a uniform manner, and under the immediate inspection of their own Agent, and have been proved and known to answer the purpose. None have been manufactured in this country or imported from abroad beside their own, which would at all answer the purpose; and if any such should be produced, it cannot be used for Car Springs, while Goodyear's patents, and the rights of the New England Car Company under them, remain in force.

The New England Car Company are now prepared to answer orders for all that may be called for, on reasonable notice, and uniform and equitable terms. They invite the most careful examination, and the severest scrutiny, into the merits of their Springs, wherever they have applied them. And if after such examination, your Company should judge it for their interest to adopt them, the N. E. Car Company would respectfully invite the patronage which they think they deserve, and are confident of receiving at your hands.

EDWARD CRANE, Agent,
Office 99 State street.
Orders may also be left with **WM. RIDER & BROTHERS**, No. 58 Liberty street, New York, or with **F. M. RAY, Agent,**
100 Broadway, N. Y.

The following article, from the pen of Mr. HALE, the president of the Boston and Worcester railroad, expresses his opinion of this important improvement, as published in the Boston Daily Advertiser of June 7, 1848. He says:

"Of the numerous uses to which the wonderful elasticity and durability of India Rubber renders this material applicable, we are hardly aware of one in which it has been more successful than in forming springs for railroad cars. We have had occasion to observe, for some months past, its application to this use, on one of the passenger cars on the Newton special train of the Boston and Worcester railroad. It is there used, not only for the springs on which the car rests, but for the springs attached to the draw bar at each end of the car, to prevent any jar on the sudden advancement or interruption of the motion of the car. For both these purposes it appears to be admirably adapted, and we do not learn, that during the period in which it has been used, any defect in it has been discovered. It renders the movements of the car extremely easy, and protects it more effectually, we think, than any other spring which we have ever seen in use, from every harsh or unpleasant motion, either vertical or horizontal. It is simple in its form and application, extremely light, and little liable to get out of repair. During the period of some months, in which we have seen the springs in operation, there is no apparent wear or diminution of their efficiency."

The above statement of Mr. Hale agrees with my own observation in all particulars.

WM. PARKER, Supt. B. & W. R. R.
June 8, 1848.

I fully concur in the foregoing statement, from practical observation of its use for the last 5 months, on the Boston and Worcester railroad corporation cars.

D. N. PICKERING, Jr.,
Supt. Car Building B. & W. R. R.
Boston, June 10, 1848.

The New England Car Company have introduced their Vulcanized India Rubber Car Springs on the roads with which we are respectively connected, and we fully concur with Mr. Hale in the above opinion of their character and properties.

DAVENPORT & BRIDGES, Car Builders,
BRADLEY & RICE, Car Builders,
Boston, June, 1848.

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D. K. MINOR.